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EDITORIAL

These are days of considerable unrest in both abnormal psychology and social science. New hypotheses of human nature are being advanced and new direction is being given to empirical investigation. The field, therefore, which is the province of THE JOURNAL presents a most interesting if perplexing, array of facts and viewpoints. As illustrations of this diversity we have, in abnormal psychology, structural and functional interpretations of psychoses and border line conditions, theories of neuropathic inheritance, new schools of suggestion and autosuggestion, various theories of the unconscious, and many varieties of clinical testing. In social science also rival claims are made for diverse forms of explanation. The importance of cultural and institutional factors is being justly stressed. The behavior viewpoint, which sees mainly the individual behind social change, is rapidly developing. These two trends disagree in the importance assigned to the group and the individual respectively; they agree in the interpretation of human nature as largely concerned with habit formation and less with the traditional categories of instinct. Meanwhile the older writers upon instinct and the purposive viewpoint are resharpening their arguments and renewing the attack from their quarter. New discoveries and theories in abnormal psychology are entering the social controversy, lending the weight of their principles of human nature toward one phase or another of social explanation. Two notable developments have recently served this purpose, *viz.*, the principles of conflict and repression as forces underlying social phenomena, and the study of the unit of social behavior, which is personality. There are other interests, also, of theory and practice which inseparably link the problem of social causation with the province of the psychiatrist.

Unrest, although deplored in popular usage, is an extraordinarily hopeful sign in science. Out of this incoherent tangle of

fact and theory we shall in time sift the elements of truth, and shall reach a position one step nearer the understanding of human nature and the social life. It is the policy, therefore, of THE JOURNAL to encourage this heterogeneity of investigation and viewpoint, and to publish also contributions aiming at a critical analysis, comparison, or synthesis of the various movements. The aim will be, as in the past, to foster the numerous contemporary tendencies, to compare, criticize, define issues, and when justifiable to point out progress toward that agreement and unity which the truth alone can give. The editors believe that this policy expresses the highest service which a scientific journal can render to its readers and contributors.

The interest of the last number (January-March, 1924) centered about detailed experimental investigation upon a diversity of abnormal and social topics. It is fitting that the present number, which introduces Volume XIX, should be devoted to some of the broader questions of theory. The specific problem of this number is how psychology can be used in establishing a sound basis for social theory and research. The leading article by Professor Ellwood develops one of the more general points of view. Following this the editors have the pleasure of presenting three papers read at the recent Washington meeting of the American Sociological Society by psychologists invited for that purpose. These articles, timely in their interest, were discussed at the same session by well-known sociologists. The discussions are published following the papers. Permission for the use of this material was given through the courtesy of Professor E. W. Burgess, Secretary of the American Sociological Society. The remaining contributions continue the discussion of theoretical questions vital to the common bond between abnormal and social study.

ORIGINAL ARTICLES

THE RELATIONS OF SOCIOLOGY AND SOCIAL PSYCHOLOGY *

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THE NATURE OF THE SOCIAL SCIENCES

THE effort of the social sciences, no less than of other sciences, is to understand the mechanism or technique of the phenomena with which they deal, which is, in their case, the processes of the social life. They endeavor, like all science, to explain phenomena by describing fully all conditions essential to their occurence. In this broad sense there is no difference in the spirit and method of the so-called natural sciences and of the social sciences. The social sciences are as much true sciences as the physical sciences; but on account of the complexity of the phenomena with which they deal they have more difficulty than have the physical sciences in becoming bodies of accurate, tested knowledge, such as every science aspires to be.

The physical sciences have become bodies of accurate, tested knowledge largely through the method of experimentation, which is the method of observing phenomena under such controlled conditions that they can usually be accurately compared and measured. While this method is not absolutely closed to the social sciences, it seems to have such limited possibilities in the fields of social phenomena that the scientific student of social life is forced to depend largely upon other methods, such as the observation, comparison, and correlation of social phenomena. Measurement is, however, not essential to science, and it is a mistake to think of science as merely or chiefly "a quantitative statement of objective facts". The most important statements of modern science, for example, those connected with the theory of evolution, are not quantitative statements, but statements of developmental relations; and to limit science to quantitative formulations is unwarranted by either the history or the nature of science. Quantitative measurements are desirable in every science for the sake of exactness; but the social sciences for a long time will probably have to content themselves with the critical analysis, comparison and

* An excerpt from the first chapter of a work on "The Psychology of Human Society" soon to be published by Appleton's for the writer.

correlation of social phenomena. While they may not become exact quantitative statements, the social sciences may become bodies of critically established, and therefore, of trustworthy knowledge. In the broad field of the social sciences sociology is usually recognized as the most general of the sciences of social phenomena. Starting with a common sense view of the world, sociology and the other social sciences seek to show how certain conditions or forces make that part of our experience which we call "social" what it is from moment to moment. They aim to make human society and its changes intelligible.

THE NATURE OF SOCIAL LIFE

Living in groups is not peculiar to man, but characterizes many plants and animals as well. Nor is living in groups in itself "social life". A clump of grasses, a forest of trees, a colony of bacteria, or a group of protozoa may show interdependence in the life activities of their separate units; but we do not usually call such groups "societies", because so far as we know, no conscious relations of "comradeship" are involved in such forms of collective life. The relations between their units seem to be purely physical or physiological. Such groups, it is true, show the first mark of social life in that they share a common life; but since they are lacking in conscious relations they cannot be regarded as having social life.

As soon as mentality appears in the world of animal life another sort of interdependence is possible. This new interdependence takes the form of mental interaction, or, as we might more accurately say, of mental interstimulation and response. In other words, more or less conscious relations arise among the members of animal groups, and the group activities begin to be carried on by means of more or less conscious interactions or mutual adjustments between the members of such a group. In this case, the association of the members of a group is guided and controlled by conscious or mental processes, giving rise to what we may call, properly speaking, collective or group behavior.

When we analyze this "collective behavior" we find that it is made up of various forms of interstimulation and response, which range all the way from the level of almost unconscious instinctive reactions, controlled wholly by heredity, to the level of rational adjustments, controlled (in human beings) by the highest conscious intelligence. Now this collective behavior which is intermediated and controlled by more or less conscious processes is

also known as "social behavior". We might call "social behavior", therefore, that which results from the more or less conscious adjustments of individuals to one another; and "social life" the life which results from the mental interstimulation and response of the members of a group. In the lower forms of animal life it begins with very simple forms of mental interstimulation and response, such as imitation and sympathy, but in man it rises to the level of intelligent communication. It is the communication between individuals which especially makes possible the organized and definite forms of collective behavior which we see in human groups. In human groups this intercommunication is the chief form of mental interstimulation and response.

We are now prepared to see that the two marks of "social life" are (1) coöperation, in the sense of the carrying on of certain common activities by a group, and (2) mental interaction, in the sense of conscious interstimulation and response. The latter, however, is only the means or method of carrying on common or group activities. Social life is evidently that form of collective life which is carried on by mental interaction, that is to say, on a psychic plane. This is because a social group is made up of relatively independent individuals, and hence their only possible means of reciprocal adjustment is through more or less conscious interstimulation and response. It follows, therefore, that the psychology of "social life" cannot be in terms of "subjective" mental processes within the individual, but must be in terms of the whole process of interstimulation and response between individuals. The psychology of collective human behavior must accordingly form a very considerable part of sociology, which treats of social phenomena in general; for only in this way can we secure scientific analysis of the method by which the common life or activities of human groups is carried on.

From what has been said we may define society as *any group of individuals who carry on common activities or a common life by means of mental interstimulation and response.* Conscious relations there may be without social life, but there is no social life without conscious relations or mental interaction. It is, therefore, the psychic element which constitutes the "social", or to put it in other words, it is intermental life in a group of individuals which makes possible "social life". It would be a mistake, however, to think that the whole of the social life is to be found in its psychic or mental elements; on the contrary, the interdependence which we find in a social group is an interde-

pendence of the whole life process. It includes objective physical activities as well as the psychic processes which guide and control these activities. While there is no excuse for the one-sided conclusion that intermental life is the whole of social life, or that psychology of collective behavior is the whole of sociology, yet we must recognize that intermental stimulation and response is what makes possible social life. It is its method—its essential and constitutive element.

The external mark of the "social" is the interdependence in activity or behavior of a group of relatively independent individuals. But some degree of reciprocal consciousness on the part of the individuals of a group is the only possible method of establishing and maintaining coördinated activities. The most ordinary observation establishes the fact that the members of such a group are stimulated by the presence of other individuals of the group. Some consciousness of other individuals, in other words, is necessary to make any social adjustment. Indeed, we cannot think of society in any intelligible sense in which we use the term without reference to conscious elements. When we study all the elements which go to make up human social life, moreover, we find them to be either conscious processes or closely associated with conscious processes. Any situation in the social life of humanity will be found upon scientific analysis to consist of conscious activities, mental attitudes, feelings, beliefs, interests, desires, values, and standards on the part of individuals. Nor is there any social situation left when these psychic elements are entirely taken away. Usages, customs, traditions, institutions, even civilization itself, all alike resolve themselves into elements which are essentially psychic. We cannot, indeed, think of human institutions or of human history as existing apart from conscious agents. The social is evidently a special development of the mental or psychic. It is mental interdependence, the contact and overlapping of our inner selves, which makes the "social". All this merely emphasizes again the point that it is the psychic element which constitutes the social and that the criterion of the social is mental interdependence. Consequently a psychological explanation is necessary to understand social processes or group behavior.

EVOLUTIONARY PHASES OF SOCIAL LIFE

Social life begins with animal association. Many animals besides man, as we have already said, live in groups and adjust themselves to one another through some sort of consciousness of

the presence of other individuals in their groups. Even instinctive activities frequently require some degree of reciprocal consciousness on the part of individuals for their functioning. Thus collective behavior, or social life, begins far down in the reaches of animal life. The life of the social insects, such as the ants and the bees, sufficiently illustrates this phase of social life. But not until social life, or collective behavior, depends upon *acquired* uniformities of action, rather than upon inborn or hereditary uniformities of instinct, is there opportunity for the domination of such behavior by conscious processes.

Even before the human stage is reached we find uniformities of action apparently brought about in social groups of animals by such psychic processes as suggestion, imitation, and sympathy. Animal groups, however, are undoubtedly dominated by the hereditary or instinctive element. Human society, on the other hand, is characterized from its earliest beginnings by *acquired* uniformities due to habit. A habit which is acquired by one individual of the group may be communicated to other members of the group and thus become the common property of all. Mental interstimulation and response, especially in the form of intercommunication, thus assumes a new importance. Hence a new type of social life is possible—one built upon the basis of acquired habit; and the acquirements of one individual may become acquirements of all through mental interstimulation and response. Accordingly, the web of intercommunication necessary for the transmission of habit takes the place in human groups of instinct in bringing about relative uniformity of action on the part of all members of the group. This explains why the social life of man shows many complex phases of behavior not shown by animal groups, such as industry, art, government, education, science, morality, and religion. All of these, which taken collectively form what the anthropologist and the sociologist terms "culture" (which is the scientific term for civilization in the broadest sense), rest upon acquired habit and go back to man's superior means of social communication through articulate speech, as well as to his superior power of adaptation through abstract thought.

Culture or civilization is, then, not inborn, but acquired by every individual in human groups; but this culture of the group dominates the behavior of the individual and so the behavior of the whole group. Human social life is thus dominated by "culture", and culture is a matter of habits acquired by interaction with other members of one's group. This interaction is, how-

ever, almost wholly on the psychic plane, and is mediated by suggestion, imitation, and the more definite forms of communication, such as language. Human sociology becomes very distinct, therefore, from the psychology of the collective behavior of animal groups. *It is culture and habit, not instinct, which must be the main concern of the sociologist, or of anyone who offers a psychological interpretation of collective human behavior; for it is the development of culture which distinguishes the social life of man from the social life of the brutes.*

Thus approaching social life from the standpoint of evolution we discover again that it is essentially psychic in its nature and methods; indeed, increasingly so as we ascend in the scale of social development. A purely objective sociology, that is, a sociology wholly in terms of physical processes, if it were possible, would be meaningless to us. Any scientific description of human social life accordingly must be in terms of conscious processes if it is to be intelligible to us. The psychological part of sociology, therefore, becomes its main part. It is not only the larger part but it is the more fruitful part, if our aim in studying social life is to learn how to control it; for it is conscious processes which are especially subject to control. This is not saying, however, that there is not a physical and mechanical element in human society, as well as a psychic element. Sociology is, then, a broader subject than the psychology of human society, even though the latter may be the most immediately practicable part of sociology.

SOCIOLOGY AND SOCIAL PSYCHOLOGY

Both sociology and social psychology[1] are concerned with the study of social groups, especially human groups, their organization, development, and behavior. What is the relation between these two studies, if both aim to make the collective life of man, and its changes, intelligible?

In the broad sense sociology may be defined as the study of human relations, or of the interactions of individuals and of groups. But inasmuch as these relations are the outcome of group life, we may accept as a working definition for sociology that it is *the science of the origin, development, structure, and functioning of social groups.* Its point of view, its interest, is always in the group, or in collective behavior. On the other hand, the point of view, the interest, of psychology as ordinarily understood is in

[1] As ordinarily understood.

the individual and his behavior. The problem of psychology is to explain the experience and the behavior of the individual, while the problem of sociology is to explain the nature and the behavior of the group. *As soon as interest shifts from the individual to the group, it shifts from the purely psychological to the sociological.*

But what shall we call the consideration of the psychical aspects of social groups and of social life generally? This has usually been called "social psychology", but it is evidently a part of sociology if the distinction between psychology and sociology, which has just been pointed out, is a valid one. If, of course, it is an error to explain society in psychological terms at all, as some social thinkers have contended, then there can remain only a physics or a biology of society, and the attempt at a psychological interpretation of group life is a mistake, due probably to a false metaphysics, and not within the limits of science. Such a view, however, is absurd, both from the standpoint of science and of common sense. The main development, both of scientific sociology and of scientific psychology, has held to the view that a psychological interpretation of social life is a part, and a very necessary and important part, of any general science of society, or of sociology. Social psychology, in the sense of the pschology of group behavior, is accordingly a part of sociology.[2] *It is the study of the psychic factors involved in the origin, development, structure, and functioning of social groups.*

It must be admitted, however, that if the study of collective behavior is superficial and unorganized it may fall short of sociological science. After all, sociology, like all other sciences, is defined by its problems, and if a psychological study of group behavior is not made with reference to the explanation of the objective or external forms and changes of social life, it can hardly be said to be truly sociological; for the aim of the sociologist, as we pointed out, is to reach a general and consistent theory of the objective social life. It must also be admitted that social psychology as a study may cover the social motives and social behavior of the individual. In this case, its center of interest is the individual and his behavior, and such social psychology remains purely psychological.[3] It will be of value to the

[2] Compare Professor Giddings' statement (*Studies in the Theory of Human Society*, p. 252): "Pluralistic behavior is the subject-matter of the psychology of society, otherwise called sociology."

[3] Such a social psychology of individual behavior and consciousness is presented, *e.g.*, in the first fourteen chapters of Professor Allport's recently published book, "Social Psychology."

sociologist because it will aid him in understanding the forms and the changes of group life, but it is not sociology. Apparently, then, "social psychology", as commonly used, is a vague term which covers parts both of the psychology of the individual and of sociology. To social psychology in the sense of the study of socially conditioned individual behavior (and there is little in the behavior of the adult individual that is not socially conditioned) there can be, of course, no objection, provided it does not seek to take the place of the study of group behavior.

That there is group life and behavior as certainly as there is individual life and behavior is attested in our experience by such facts as customs, institutions, group organization, and group changes. To think, however, that these can be understood apart from the behavior and experience of individuals is also absurd. The group and the individual, social life and the individual life, are correlatives, and neither can be understood apart from the other. Hence the need of a study of group life and of collective behavior, as well as of human nature and individual behavior; of the psychology of society as well as a psychology of the individual. Like the individual and the social life, like the individual mind and civilization, so psychology and sociology are inextricably linked and overlap. It is hardly profitable to inquire too narrowly where one leaves off and the other begins; but it is profitable to study both the individual and the collective aspects of life and behavior, both human nature and human society.

SOCIOLOGY AND PSYCHOLOGY

The only satisfactory basis for distinguishing the sciences from one another is the distinction between their problems. The different sciences merely represent divisions of labor among the workers in the scientific field, and so frequently overlap. There is probably nothing in the social life of man which cannot be explained by principles of physics, chemistry, geography, biology, and psychology. Nevertheless, these antecedent sciences do not explain the social life of man, for the simple reason that that is not their problem.

The distinction between sociology and psychology, as we have seen, is peculiarly difficult to define, if we recognize the validity of the psychological method in sociology, unless we frankly recognize that the distinction between the sciences is one of problems. Psychology, as we have said, studies the individual and his behavior, while sociology studies the group and its behavior. But

we cannot understand the group apart from the nature of the individuals who compose it. The dependence between sociology and psychology is reciprocal. Individual psychology must look to the study of group life for the explanation of much in individual behavior. It depends as much upon the psychology of society as the psychology of society depends upon it.

This fact enables us to see clearly, however, that the social sciences are interested primarily in the problems of collective life and not primarily in understanding the nature and behavior of the individual. Nevertheless, the behavior, interaction, and organization of groups, cannot be understood apart from the instincts, habits, feelings, and intelligence of individuals. Consequently, the work of the sociologist consists largely in tracing the working of these various individual psychic factors in the group life. The sociologist is, necessarily, a psychologist if he is an adequate scientific student of group behavior.

However, it is becoming increasingly evident that what has been called the psychological method of studying social problems, namely, by deductions from individual psychology, or original human nature, is inadequate. A too exclusive use of this sort of psychological analysis in the social sciences leads to many serious errors; for the human mind as we know it, and hence social behavior, are very largely products of historical social conditions. The mind and the conduct of an individual, in other words, is largely a product of the social tradition or culture into which the individual is born. The psychology of social behavior becomes dependent, therefore, upon an understanding of the historical social environment in which the individual lives. To study human institutions exclusively from the standpoint of the mechanism of the individual mind is, accordingly, a grievous blunder. Group behavior is far more a historical and cultural product than a product of original human nature. Much more than deduction from individual psychology is, therefore, involved in the psychology of human society. It would be unreasonable to suppose that so complex phenomena could be understood through the work in psychological and biological laboratories, though this work may be of great value toward such an understanding.

All modern science is essentially inductive in spirit; that is, it proceeds from facts to theory rather than from theory to facts—from particulars to universals rather than from universals to particulars. This does not preclude all use of deduction from biological and psychological laws and principles in the scientific

study of society; for such laws and principles have been built up from the inductive study of individual facts. But it does indicate that the scientific student of human society must study social facts if he is to proceed according to a sound method. It is little short of scandalous that so many psychologists are writing about social problems without a critical knowledge of human history and human culture. To some extent, psychologists have recognized the value of anthropological material, but they have been very slow to recognize the value of historical and statistical study. Manifestly, however, the development of human culture, and so of social behavior, is an historical process. Social behavior can be understood only through understanding its historical conditions. If the psychologists really wish to aid in the development of the social sciences, they must get out of their laboratories and study historical records and human communities. Why should they not? Both human history and existing community life are manifestations of the human mind, and in some respects clearer manifestations than any that can be studied in the laboratory. Psychologists can be of immense help to students of human society; but they will have to broaden their methods if they are to render truly scientific aid in the understanding of all the complexities of collective human behavior.

CAN SOCIOLOGY AND SOCIAL PSYCHOLOGY DISPENSE WITH INSTINCTS?*

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SOME two years ago I wrote an article examining some of the objections that had been raised in recent publications against the conception of instinct in general and especially against the use of it as a fundamental conception for social psychology.[1] In spite of this endeavor to stem what seemed to me a reactionary and obscurantist tide, the tide has flowed on in the form of books and articles of similar tendency, that is to say, tending to discredit and reject the conception of instinct as a fact of human nature.

I propose, in this paper, briefly to examine some of the more important of these writings in respect of this tendency.[2] Most important and influential of all these (if one may judge of this by the eminence of the author and the extremely eulogistic reception of the work by the reviewers) is Prof. John Dewey's *Human Nature and Conduct; An Introduction to Social Psychology* (New York, 1922).

In the year 1917 Professor Dewey published an article in which he seemed to welcome and accept wholeheartedly my treatment of Instinct as fundamental for Social Psychology. He wrote: "I hope I may find general agreement in pointing to the work of McDougall and Thorndike as indicative of the next great force in social psychology. . . . Henceforth our social psychology is placed upon the sure ground of observation of instinctive behavior." He welcomed "the advent of the new type of psychology which builds frankly on the original activities of man and asks how these are altered, requalified, and reorganized in consequence of their exercise in specifically different environmnts."[3]

This seemed almost to warrant the belief that the hope with which I wrote my "Social Psychology" was about to be fulfilled, the hope, namely, that my exposition of the human instincts and

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* Read in part before The American Sociological Society at Washington, D. C., December 29, 1923.

[1] "The Use and Abuse of Instinct in Social Psychology." JOURNAL OF ABNORMAL PSYCHOLOGY AND SOCIAL PSYCHOLOGY, 1922.

[2] If my criticism of some eminent persons should seem rude and gloveless, I would plead in excuse that trenchant mutual criticism among psychologists seems to be much needed at the present time.

[3] *Psychological Review*, Vol. 24. "The Need for Social Psychology."

of the processes by which the instinctive dispositions became modified and organized in sentiments, and the sentiments organized in the system which we call Character, might be accepted as a first and much needed approximation to an agreed basis for Social Psychology and for all the social sciences.

But, in the book under review, Professor Dewey goes back upon his endorsement and would almost seem to retract it entirely. He makes no explicit reference to my work but in his preface he tells us that his book "seriously sets forth a belief that an understanding of habit and of different types of habit is the key to social psychology." Accordingly the book opens with six chapters devoted to the exposition of habit, and in the following section are two chapters which aim to show that there are "no separate instincts".

In the chapters on habit we are told that "All virtues and vices are habits"; that "all habits are affections, that all have projectile power;" that "all habits are demands for certain kinds of activity; and they constitute the self. In any intelligible sense of the word will, they *are* will. They form our effective desires and they furnish us with our working capacities. They rule our thoughts, determining which shall appear and be strong and which shall pass from light into obscurity." We are told also that all habits are in continued operation. "Were it not for the continued operation of all habits in every act, no such thing as character could exist. There would simply be a bundle, an untied bundle at that, of isolated acts. Character is the interpenetration of habits";—and "the dynamic force of habit taken in connection with the continuity of habits with one another explains the unity of character and conduct, or speaking more concretely of motive and act, will and deed." Dewey writes also of "the motor urgent force of habit" and says "A habit impeded in overt operation continues nonetheless to operate. It manifests itself in desireful thought." "Morals mean established collective habits." "Habit is energy organized in certain channels"—and "to understand the existence of organized ways or habits we surely need to go to physics, chemistry and physiology rather than to psychology." "Emotion is a perturbation from clash or failure of habit, and reflection, roughly speaking, is the painful effort of disturbed habits to readjust themselves." "Habits formed in process of exercising biological aptitudes are the sole agents of observation, recollection, foresight and judgment."

"Concrete habits do all the perceiving, recognizing, imagining, recalling, judging, conceiving and reasoning that is done."

"Every habit is impulsive, that is projective, urgent, and the habit of knowing is no exception." "The primary fact is that man is a being who responds in action to the stimuli of the environment." And "Man is a creature of habit, not of reason nor yet of instinct."

From all of these passages, and from the context of the first six chapters, one might fairly conclude that Professor Dewey is just an orthodox stimulus-response behaviorist, set upon substituting for psychology a study of mechanical reflexes and deducing his physiology of reflexes from the mechanistic dogma. And that school is doubtless inclined to welcome him to the fold as a much valued recruit.

But any such conclusion would be hasty. Although Dewey has fairly boxed the compass with habits, so that it may seem that no fact or function of human nature is left over for recognition as other than habit, yet with charming inconsistency, he professes to find room for two other great principles or functions, namely *impulse,* and *thought or intelligence.* After persuading us in Part I that all is habit and habit is all in all, Dewey goes on in Part II to give us some account of impulses. "Habits as organized activities are secondary and acquired, not native and original. They are outgrowths of unlearned activities which are part of man's endowment at birth." And these "unlearned activities" are by no means mere mechanical reflexes.

"It goes without saying that original, unlearned activity has its distinctive place and that an important one in conduct. Impulses are the pivots upon which the reorganization of activities turn, they are agencies of deviation, for giving new directions to old habits and changing their quality. Consequently, whenever we are concerned with understanding social transition and flux or with projects for reform, personal and collective, our study must go to analysis of native tendencies. Interest in progress and reform is, indeed, the reason for the present great development of scientific interest in primitive human nature. If we inquire," he says, "why men were so long blind to the existence of powerful and varied instincts in human beings, the answer seems to be found in the lack of a conception of orderly progress. It is fast becoming incredible that psychologists disputed as to whether they should choose between innate ideas and an empty, passive, wax-like mind. For it seems as if a glance at a child would have revealed that the truth lay in neither doctrine, *so obvious is the surging of specific native activities.*" Again, "The discovery of the scope and force of instincts has led psy-

chologists to think of them as the fountain head of all conduct. . . ." ["Native activities are organs of re-organization and re-adjustment." He goes on to indict educationists on the ground that their aim has been too often mere training, the formation of habits, the kind of educational aim in fact which inevitably goes with the acceptance of the doctrine of the all-importance of habit set forth by Dewey in his first six chapters. In this connection he writes: "There has grown up some consciousness of the extent to which a future new society of changed purposes and desires may be created by a deliberate humane treatment of the impulses of youth. This is the meaning of education; for a truly humane education consists in an intelligent direction of *native activities* in the light of the possibilities and necessities of the social situation"; and "if modern thought and sentiment is to escape from this division, it must be through utilizing released impulse as an agent of steady reorganization of customs and institutions."

These "impulses" or "native activities", then, are sharply and rightly distinguished from habits. We are even told that "habit and impulse may war with each other".

It might perhaps be inferred from the chapter on "No Separate Instincts" that Dewey has fallen back upon the old doctrine of Bain, to the effect that the organism contains a reservoir of undirected spontaneity, an indefinite capacity to put forth effort or striving of a perfectly general or nonspecific kind; from which undifferentiated matrix all habits are gradually formed. Or it might be supposed that his excessive stressing of the rôle of habit was due to his acceptance in a very literal sense of James' untenable "law of the transitoriness of instinct", the doctrine that instincts, if and when evoked, at once become habits, but, if not evoked at the appropriate moment of development of the young organism, atrophy and disappear completely.

But a closer reading shows that Dewey accepts neither of these doctrines. It is clear that, when he writes of "the surging of specific native activities", he repudiates the doctrine of Bain. And James' doctrine of the transitoriness of instinct is equally clearly repudiated in the following passages: "While childhood is the conspicuous proof of the renewing of habit rendered possible by impulse, the *latter never wholly ceases to play its refreshing rôle in adult life.* If it did, life would petrify, society stagnate. Instinctive reactions are sometimes too intense to be woven into a smooth pattern of habits. Under ordinary circumstances they appear to be tamed to obey their master, Custom. But extraor-

dinary crises release them and they show by wild violent energy how superficial is the control of routine [*i.e.*, habit]. . . . At critical moments of unusual stimuli the emotional outbreak and rush of instincts, dominating all activity, show how superficial is the modification which rigid habit has been able to effect." . . . Further: "There always exists a goodly store of nonfunctioning impulses which may be drawn upon. Their manifestation and utilization is called conversion or regeneration when it comes suddenly. But they may be drawn upon continuously and moderately. Then we call it learning or educative growth. Rigid custom signifies, not that there are no such impulses, but that they are not organically taken advantage of. As a matter of fact, the stiffer and the more encrusted the customs, the larger is the number of instinctive activities that find no regular outlet and that accordingly merely await a chance to get an irregular, uncoördinated manifestation." Also: "The moral problem in child and adult alike as regards impulse and instinct is to utilize them for formation of new habits." Dewey tells us also that he uses "the words instinct and impulse as practical equivalents"; and, like James, he asserts that man has more instincts than the beasts. Nor are these instincts or impulses, these "native activities", purely nonspecific, *i.e.*, without specific tendency towards an end or goal, merely so many packets of conative energy, all alike and equally capable of urging the organism towards any and every end; comparable to the cartridges which form the stock of energy of a machine gun, energies that may be turned toward any goal by the directing intelligence. For Dewey speaks of "the impulse of fear" and says that it "may become abject cowardice, prudent caution, reverence for superiors or respect for equals." He writes also of "a possessive tendency", of "the proprietory impulse", of "the intensity of the sexual instinct", of "impulse toward food", of "the impulse to look and see"; and he tells us that "among the native activities of the young are some that work towards accommodation, assimilation, reproduction, and others that work toward exploration, discovery and creation", and that "there are an indefinite number of original or instinctive activities, which are organized into interests and dispositions according to the situations to which they respond." Further, "Every impulse is, as far as it goes, force, urgency. It must either be used in some function, direct or sublimated, or be driven into a concealed, hidden activity"; and he speaks of the balking and twisting of impulses and of "the evils of suppression of impulse".

The foregoing citations make it clear that Dewey is no exponent of the doctrine that man is a bundle of mechanical reflexes; but that rather he accepts without reserve the hormic theory of human and animal activity, that he recognizes purpose or purposive striving as fundamental for psychology; that he recognizes also that innate human nature comprises an array of native activities, tendencies, impulses, or instincts. Yet he sternly forbids us to attempt to define the nature of these impulses, to attempt to discover towards what goals they tend or impel us.

In my "Social Psychology" I took the view that if, as I maintained, human nature does comprise such native impulses or tendencies, it must be a prime task of the psychologist to attempt to ascertain their nature and number; and that some progress with this task is especially the prime condition of the building up of a social psychology. This was the proposition which in 1917 Dewey seemed to endorse unreservedly. But now he tells us that there are no separate instincts and forbids us to attempt to define them. He asserts that "to increase the creative phase and the humane quality of these activities [the indefinite number of original or instinctive activities] is an affair of modifying the social conditions which stimulate, select, intensify, weaken and coördinate native activities. The first step in dealing with it [*i.e.*, with the increasing of the creative phase and the humane quality of the instinctive tendencies or impulses] is to increase our detailed scientific knowledge." Here the reader may well suppose that Dewey means that the first step must be to increase our knowledge of the tendencies in question. But no. In his opinion no such knowledge is required, and the attempt to acquire it is taboo. The knowledge he refers to, as needing to be increased, is knowledge, not of the impulses, but of social situations. For he goes on: "We need to know exactly the selective and directive force of each social situation; exactly how each tendency is promoted and retarded." Could anything be more perverse? How can we hope to know how each tendency is promoted and retarded by social situations unless we have some notion of the nature of these tendencies, unless we can, however imperfectly, define each tendency.

The reader turns with some curiosity to the chapters on "Classification of Instincts" and "No Separate Instincts" to discover the grounds of this taboo upon all attempts to study and understand the instinctive tendencies. And to his astonishment he finds that the only grounds of it adduced by Professor Dewey are three in number, all equally pointless. First, all definition and

classification are for some purpose. But surely this in itself does not invalidate them. If the purpose be good, namely a better understanding of human nature, the definitions achieved may be valid and useful. If this ground be accepted, every human undertaking, and especially all drawing of distinctions, must be equally condemned and tabooed and we must renounce all science and return to the indiscriminating ignorance of the savage or the animal.

Secondly, Dewey adduces the vulgar objection that various writers have defined very variously the number and nature of the instinctive tendencies of human nature. But, surely, this is only a good reason why an authority such as Dewey should throw himself into the task of critically examining, refining, and improving upon the attempts of previous writers, rather than to place a taboo upon all such attempts.

Thirdly, Dewey points out, as has often been pointed out before, that various writers, from Thomas Hobbes to Nietzsche, and Freud, and Trotter, have seized upon some one instinctive tendency, and have worked it for all and for far more than it was worth, seeking to make it the spring of all human activity and the master-key to the understanding of all social phenomena. There again, surely, our reaction to such errors should be, not to condemn all attempts at definition and understanding, and not to take refuge in vague generalities, as Dewey does; but rather, taking warning from such errors, to improve upon such ill-balanced attempts by undertaking a more discriminating analysis.

In the pages devoted to the discussion of motives we find similar confusion, inconsistency, and wilful obscurantism. "There is", we are told, "doubtless some sense in saying that every conscious act has an incentive or motive"; and on the same page: "In every fundamental sense it is false that a man requires a motive to make him do something. . . . The whole concept of motives is in truth extra-psychological. . . . But when we want to get him to act in this specific way rather than in that, when we want to direct his activity, that is to say in a specified channel, then the question of motive is pertinent. A motive is then that element in the total complex of a man's activity which, if it can be sufficiently stimulated, will result in an act having specified consequences. . . . An element in an act viewed as a tendency to produce such and such consequences is a motive. . . . A motive in short is simply an impulse viewed as a constituent in habit, a factor in a disposition. In general its meaning is simple. But in fact *motives are as numerous as are original impulsive*

activities multiplied by the diversified consequences they produce." Is it not implied in the last paragraph cited that motives are the native impulses directed through past experience upon specialized ends or goals. How then are they extra-psychological? And how can we understand and evaluate and direct them, unless we understand the nature of these impulses?

One might speculate on the motives which have led Professor Dewey into this strange position. But I will contend myself with pointing out what seem to me the intellectual errors involved. First, Dewey begins by accepting the vulgar overestimation of habit, and the misleading fashion of using "habit" in the widest possible sense, so that he speaks of "intellectual habits" and of "habits of independent judgment and of inventive initiation"; yet, at the same time, he fails to distinguish between the many different kinds of habit, and takes such a purely bodily habit as the habit of standing in a certain posture as the type of all habit, and so can say that "to understand habits we surely need to go to physics, chemistry and physiology rather than to psychology."[4]

Secondly, Dewey neglects consistently the distinction between activity and disposition, a distinction on which I have so repeatedly insisted as essential to clear thinking on this topic; and this neglect infects all his exposition with ambiguity. If he would observe the distinction, then, instead of saying that we inherit, as part of our endowment at birth, unlearned activities and impulses, he would say that we inherit dispositions to such activities or impulses. Then he would have to recognize that such dispositions are concrete facts of structure; and he would find the attempt

[4] I utterly fail to understand what virtue or merit may inhere in this practice, so fashionable among philosophers and psychologists, of abdicating, shirking their tasks and handing over their own proper problems to the tender mercies of physicists, chemists and physiologists. Perhaps this undue humility is due to their ignorance of those sciences, of their limitations, of their inadequacy to the problems of behavior. In this connection the following passage from the pen of a great physical chemist is relevant: "It is simple now to indicate what to my mind are the two errors that hinder progress. Both are monistic obsessions due to the mind in its innate desire to reduce everything to its simplest terms ending by trying to reduce everything to its simplest term. The first links up the two ends of the chain running in diametrically opposite directions into a grand circle and so gets the sublimated conceptions of the mental world inextricably mixed up with the physical. . . . The second error is perhaps more common in the sphere of economics. It may be called "ultra-materialism" and is the attempt to derive the whole of the phenomena of life by continuous evolution from the inanimate world. We begin with a nebula of primordial material condensing into ever more complex forms, first to the light and then the heavy elements, then to chemical compounds up to the complex colloids. By a continuation of the same processes such a complex results that it is continually decomposing and as continually regenerating itself. The inanimate molecules begin to live and life then runs through its course of evolution up to man. This may satisfy a biologist, but it

to distinguish, enumerate, and describe these several dispositions no more "one of the conspicuous traits of highbrowism, the essence of false abstractionism" than is the attempt of the anatomist to distinguish, enumerate, and describe the several muscles of the skeletal system. Rather, he would recognize that, just as some success in the latter attempt must be the foundation of all understanding of the mechanical movements of the limbs, so also some success in the former must be the foundation of all understanding of the purposive movements or activities of the mind.

Thirdly, Dewey implicitly rejects the principle which I have adopted as the surest guide to the identification of our impulses, namely the acceptance of the qualities of emotional experience that accompany impulsive actions or the evocation of the impulses as the recognition-marks of these impulses. For he repeats the doctrine, enunciated by him more than thirty years ago, that emotion is the result of a clash of habits, a doctrine the evidence for which I have demanded in vain on more than one occasion.

Fourthly, Dewey asserts the common view that all habits are impulsive, are urgent motor forces. I have recently shown reasons,[5] to my mind conclusive, for believing that this common assumption is false and that motor habits as such are mere inert machinery requiring to be actuated by impulses from the native dispositions or instincts. Of course, if with Dewey we speak of sentiments as habits, then it is true that such habits contain their own impulsive force, for they incorporate instinctive dispositions. And here we see one bad result of using the word "habit" in an indiscriminating fashion to cover all mental structure built up through individual experience. For it leads him to confound

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fails to satisfy me as a chemist. I cannot conceive of inanimate mechanism obeying the laws of probability, by any continued series of successive steps developing the powers of choice and reproduction any more than I can envisage any increase in the complexity of an engine resulting in the production of the "engine-driver" and the power of its reproducing itself. I shall be told that this is a pontifical expression of personal opinion. Unfortunately, however, for their argument, inanimate mechanism happens to be my special study rather than that of the biologist. It is the invariable characteristic of all shallow and pretentious philosophy to seek the explanation of insoluble problems in some other field than that of which the philosopher has first-hand acquaintance. The biologist has first-hand knowledge of animate mechanism and seeks the origin of it in colloid chemistry. The test of the hypothesis is not so much what the biologist as what the chemist has to say about it. The difference to my mind between dead and living matter is much that between Niagara Falls thirty years ago and now, and is not to be explained by the laws which Niagara formerly obeyed, by the laws of pure probability, but by their opposite, the operations of intelligence, as typified in their most rudimentary form by Clerk-Maxwell's conception of the 'sorting-demon'." Professor Frederick Soddy in *Cartesian Economics*, London, 1922.

[5] "Motives in the Light of Recent Discussion." *Mind*, 1920, and "Outline of Psychology," 1923.

sentiments with simple motor habits, and to assume that whatever is true of the one class is true also of the other. Yet Dewey seems to be subconsciously aware of the fact that motor habits have no impulsive power, in spite of his assertion to the contrary. For, after discussing the impulses, he no longer speaks of habits as the motive forces, but almost invariably uses the expression "impulses and habits".

In short, Professor Dewey's overestimation of habit in his first section is utterly inconsistent with the importance rightly assigned to native impulses in this second section of his book.

Prof. Knight Dunlap, in his Presidential Address to the Psychological Association,[6] returns to the attack upon my contributions to Social Psychology. Generously recognizing that my "Introduction" initiated a new school, he attacks both my conception of the Group Mind and my use of Instinct, and proposes a substitute for the latter. I admit that the exposition of Instinct in my Social Psychology was faulty, as proved by the fact that Professor Dunlap has not understood it. I hope that the more recent exposition of my "Outline" improves upon the older one.

Dunlap is especially concerned to know what is that central core of instinct on which I have insisted as a relatively unchanging fact of structure, which endures as a self-identical whole, although its expressions may suffer much modification in detail, and although it may enter into the constitution of various sentiments. He concludes that I "really mean that the emotion is the 'central' portion of the instinct." Here he displays, and attributes to me, the same resolute neglect of the distinction between activity or process on the one hand and disposition or structure on the other, of which I have complained in criticizing Professor Dewey. I do *not* mean that the central portion is the emotion. I mean that it is an affective-conative disposition, a fact of mental structure which can only be defined in terms of its expressions in the successive activities which it partially determines and in which its nature is revealed, expressions of two kinds; on the one hand in consciousness, as emotional and conative experiences, such as angry or sexual or self-assertive impulse and desire, or fearful aversion; and on the other hand bodily changes and movements adapted to bring about the satisfaction of the appetitive or aversive impulse.

Dunlap proposes to put in the place of such affective-conative

[6] "The Foundations of Social Psychology." *Psy. Rev.*, March, 1923.

dispositions the specific processes of desire. He rightly points out that desire has been grossly neglected in recent American text-books of psychology, an inevitable result of the prevalence of the mechanical psychology of sensations and reflexes.

Dunlap says: "It must not be supposed that in desire I am offering a mere formal substitute for the instincts." I desire to show that this is exactly what he does propose to do. He goes on: "The instincts are not concrete facts, but are points of view from which we classify the mass of activities. . . . Desires on the other hand . . . are actual facts in the organism . . . we may classify desires among feelings or affections." . . . And "Feelings are literally conditions and processes in the soma and viscera." He proposes to recognize provisionally nine desires—"alimentary desire, excretory desire, desire of rest, desire of activity, desire of shelter, amatory desire, parental desire, desire of preëminence, and desire of conformity." Each of these is, he says, an objective fact of immediate experience; they are experienced by reactions initiated principally in receptors of the afferent visceral branch of the nervous system; they are experienceable objects, and they are real stimulus patterns and we might "guess at the tissues in which certain of these desires occur." Also the afferent current derived from a desire must go somewhere and so a desire contributes a driving force, energizing and activating the whole reaction system. "This activation is not the function of desire alone, but is also the work of many other feelings and emotions. Hunger, fear, rage, pain, joy and localized sex feeling are illustrations of feelings which have 'driving force'. But none of these have social value except in so far as they involve, also, or are derived from, desire."

After this description, in which the language of the New Realism is strangely blended with that of introspection, desires being described both as chemical changes in visceral tissues, peripheral stimulus patterns, and as facts of immediate experience or feelings, and also as driving forces, Dunlap seems to become obscurely aware of some confusion in his language. Writing of "the desire of conformity", he says: "Perhaps I should not call it the desire, but rather the radical of the desire." And he postulates a similar "radical" for each of the other of his nine fundamental social desires which, he affirms, must be the basis of all social psychology.

In this use of the word "radical", Dunlap seems to express a dawning recognition of the distinction between process and structure, function and disposition. Clearly, if I experience

"desire of conformity" on two, or on many, occasions, it is not literally true to say that on each of these occasions I am moved by the same desire; rather, I am moved on the several occasions by the same kind of desire; on each occasion the process or activity of desire is unique; but the similarity, as experience and as function, of the desires of successive occasions justifies us in classing them together under the one name "desire of conformity". Further, we may assume that all these similar desires which we class together by the aid of one name spring from, or are conditioned by, one enduring self-identical disposition or structural feature of our constitution. I am not concerned now with the question of how such a disposition may be best described. I am willing for the moment to accept Dunlap's view that it may be described in terms of the structure and chemical constitution of some visceral tissue or tissues. What I wish to bring out is the fact that Dunlap agrees with me in recognizing a number of relatively enduring dispositions, from each of which spring on successive occasions (or each of which is the indispensable condition of the rise of) desires of a certain class, desires of conformity, of sex, of food, etc. This recognition of enduring features of our constitution is the procedure which Dewey labels "one of the conspicuous traits of highbrowism, the essence of false abstractionism." I am glad to welcome in Professor Dunlap a fellow "highbrowist". My "desire of conformity" finds a certain satisfaction in this recognition of a fellow member of the herd of "highbrowists".

The important point is, then, that Dunlap agrees with me in the recognition of these dispositions, each one an enduring and relatively unchanging spring or source of recurrent desires. The important differences between us are the following: First, that, while Dunlap prefers to call such an enduring disposition "a desire" and thus to confuse it with the successive desires which are conditioned by it, I prefer to use a terminology which distinguishes the disposition from its functionings, the successive activities of which it is a main condition; and therefore I speak of such an enduring disposition as an affective-conative disposition. Secondly, I attempt to relate such an affective-conative disposition, on the one hand, to our emotional experiences, and, on the other hand, to the facts of instinctive behavior such as we observe in the animals; and I regard each such disposition as the "central part" or relatively unchanging part of an innate, inborn, or instinctive disposition.

Thus, in my view, an instinct is not "a point of view" nor "a

systematic group of activities"; it is as concrete a fact as Dunlap's "desire" or "radical of a desire", and plays in my psychology the same rôle which Dunlap assigns to a desire, or rather to the radical of a desire, in his.

The third difference between us is that we do not entirely agree as to the number and nature of these radicals of desire, these affective-conative dispositions, proper to the human species. Dunlap names nine such; while I, in my recent "Outline", have proposed to recognize thirteen major dispositions and a small number of minor dispositions of this affective-conative class. Dunlap seems to have reached his list by a simple process of inspection, much as Descartes and Spinoza achieved their strangely confused lists of passions.[7] I, on the other hand, have tried to make use of the principle of the continuity of human with animal evolution, and of a wide survey of animal and human behavior, and have called to my aid the principle that emotional experiences may serve as recognition-marks of the impulses or desires which they accompany and qualify.

But these differences are of minor importance compared with our agreement. For we agree in the all-important principle that the basis of Social Psychology must be the definition of the several enduring dispositions from which spring the desires of the several classes. This common ground is the all-important thing: for, this being given, we can, in spite of Professor Dewey, go forward with the common task of distinguishing them, defining their modes of operation, and tracing their growth and functioning in the lives of individuals and of societies.

Dunlap remarks that "we have travelled far in three years" in this field. To me it seems that we have not travelled at all, unless it be backward, since the publication of my "Social Psychology" in 1908. The fact that Dunlap has arrived at what is substantially my position (although he professes to repudiate my views) affords some hope that we may begin to travel forwards.

Prof. F. H. Giddings has made good use of the theory of instincts in the course of various sociological studies; but, in a recent essay, he has argued that the assumption of a gregarious or herd instinct, in men or animals, is unwarranted; because, as he seeks to show, all the modes of behavior which have been held to

[7] But, as Sir Leslie Stephen has said, "Human nature is compounded of too many elements, too intricately blended, for any offhand guesses of the cleverst philosopher to be of much value."

imply such an instinct may be satisfactorily explained without that assumption. This, then, in view of the high competence and reputation of Professor Giddings, is an attempt deserving of careful examination; for, as Giddings himself rightly asserts, the question at issue is fundamental for social theory.

Writing of group behavior,[8] Giddings affirms: "The initial action is merely a pluralistic response *(i.e.,* a reaction by more than one individual) to a common stimulation. In terms of like or of unlike, of prompt or of slow, of persistent or of intermittent response, all the phenomena of natural grouping and of collective behavior can be stated and interpreted (p. 116), and "according to their density and composition they (populations) react with more or less unity to a multiplying number of common stimuli, thereby becoming more or less alike in behavior, more or less homogeneous in feeling, thought and purpose. Through ever increasing intermental activity, they become increasingly conscious of their differences and resemblances. A consciousness of behavioristic kinds, combining with and supplementing like-response to stimulation, converts instinctive consorting and consorting by unthinking habit into a consciously preferential association, and thereby converts a herd into society. Also, combining with and supplementing like-response to stimulation, the consciousness of kind converts a merely instinctive coöperation into concerted action." . . . (p. 155) "Viewed as reaction to stimulus all behavior, both animal and human, unconscious and conscious, is mechanistic. Reflexes are reactions of relatively simple nervous mechanisms. Instincts are reaction tendencies, normally completed in reaction, of relatively complex mechanisms." . . . "Herd behavior is instinctive in part; in part it is a phenomenon of habit. Here we encounter a number of problems—which are fundamental for social theory. To say that herd behavior is instinctive is not equivalent to saying that gregariousness is *an* instinct—if *an* instinct is the response of a particular and definite nervous mechanism, there is no gregarious instinct. Yet it is equally certain that pursuit of prey by a pack of wolves and a stampede of cattle are instinctive behavior. The bare factual truth so far seems to be that a great part of gregariousness is nothing less and nothing more than a *pluralistic instinctive reaction to common stimulation,* and that no scientific necessity drives us to assume a gregarious instinct distinct from and coöperating with the primitive instincts of food-seizure and

[8] F. H. Giddings "Studies in the Theory of Human Society."

flight. This is not the whole case, however. The individual members of a herd keep together or frequently get together. Often they show distress or terror if separated and their cohesion is behavioristic; no material connective tissue holds them together." . . . "Is such behavior an instinct? By strict definition, no: there is no gregarious instinct-mechanism. Is it instinctive? Perhaps, or perhaps it is subinstinctive. Possibly it is a multitude of responses even simpler than instinctive ones. I am convinced that it is. Like the behavior of the lower organisms, it is essentially—nothing more than reaction by the motor mechanisms of the body *along lines of least resistance.*" The last sentence is intriguing. All mechanisms react only along lines of least resistance, and since, by definition, animals are mechanisms, the statement would seem to be a mere tautology. But the italics used by Professor Giddings seem to imply that the words italicized embody a discovery, the solution of that secret which our author is pursuing, the secret of gregariousness. Professor Giddings was aware at this point that to say that animals are mechanisms active along lines of least resistance does not in itself explain the fact that some animals are gregarious. So he goes on to say: "Herd-fellows are highly similar. They look alike, smell alike, bleat, bark and bellow alike, and they otherwise behave alike. Therefore, the stimulation that herd-fellow A gets from herd-fellow B is extraordinarily like the stimulation that he gets from himself. It is familiar not only in the sense that he is used to it, but also in the deeper sense that it has been familiar from the beginning. Therefore again, and further, it is *not* repellent; it does not ordinarily cause recoil or set going the instinct of flight. In contrast, stimulation from animals not of the herd, and from the outer world in general, does alarm, as often as not. There is then recoil, and the adventurer is thown back upon his herd."

Here, then, the principle invoked is that the familiar "stimulations" alone do not alarm, that only "stimulations" from herd-fellows are sufficiently familiar to provoke no alarm; that therefore in every situation other than the bosom of the herd, the animal's locomotory mechanisms are thrown into violent action, so that he is kept running about and, since he is a mechanism, his running is perfectly aimless. If by happy chance his running brings him into the herd, the familiar "stimulations" no longer excite the running reflexes and he remains at rest within the herd.

Whether this purely negative principle (of rapid locomotion in all situations other than the bosom of the herd) will suffice to

account for the continued aggregation of a herd of bison wandering over a vast prairie remains, I suggest, very much open to question. It is a problem in mechanics and statistics. Given a thousand locomotory machines, each so constituted that when within ten feet of a similar machine it moves slowly, but, when at greater distances from any similar machine, it moves rapidly, the direction of movement always being determined by a multitude of constantly varying chance factors, such as the varying slope of the surface; if a thousand such machines were assembled in a dense group on an uneven plain of indefinite extent and then set in motion, would they remain a group? Or would they not soon be found to be scattered widely and increasingly over the plain? I am strongly disposed to believe that the second alternative must be accepted.

Further, this ingenious mechanical hypothesis not only does not work, does not account for the phenomena of herding, but it is grossly inconsistent with the observable facts of behavior. When a gregarious animal, a horse or a steer, is turned into a large field, where a herd of his fellows is at pasture at some distance from him, he commonly joins the herd within a brief space of time. In doing so, he may show, by the rapidity of his movements and other signs, a certain excitement. This may be fear, as Professor Giddings suggests, excited by the sense-stimuli from the objects around him. But if, as he assumes, the expression of fear is merely running away from the exciting stimulus, such movements away from a multitude of objects will in general bring him into the herd only after a long period of running to and fro in all directions. Whereas observation shows that his joining the herd is quite other than the issue of such a multitude of movements of repulsion. Sooner or later, he catches sight or sound or smell of the herd, and thereupon makes for it with a directness which compels us to believe that it somehow exerts a specific attraction upon him, that his response to the sight, sound, or smell of the herd is to *seek it actively.* It is just in this *tendency* actively to seek the herd that the gregariousness of the gregarious animal consists, and it is this *tendency* which cannot be explained by any mechanical theory; for the only *tendency* known to mechanics is the *tendency* of a mechanical system to continue in its state of rest or motion, unless and until some force is applied to it.

But let us, for the moment, waiving these objections, assume that Professor Giddings' ingenius mechanical principle will do the work required of it. There remains a further difficulty, which has not escaped the penetration of our author. Namely, the theory

proves too much; for it proves that all animals, or at least all animals that grow up in families, should be gregarious. For they look alike, smell alike, bark alike and otherwise behave alike; and therefore "stimuli" from fellows are "not repellent: do not ordinarily cause recoil or set going the instinct of flight." And so Professor Giddings very properly goes on to ask, "If these facts (of pluralistic instinctive response to common stimulation, and reaction on lines of least resistance to interstimulation) sufficiently explain gregariousness, why, one may ask, are not all animals gregarious? The question is pertinent (we do not want our proofs of a theory to prove too much) but the answer to it is rather obvious." What then is that "rather obvious" answer? It is necessary to cite the whole of the paragraph in which it is wholly set forth: "The food of herbivorous animals does not take fright or run away when scores of them at a time tramp and mill about 'all over the place'. The food of carnivorous animals starts at a flicker, or the crack of a twig. Dogs and wolves are able, nevertheless, to capture it because they are swift of foot and can run incredible distances without exhaustion. Dogs and wolves, therefore, can hunt in packs and they do, but a considerable 'drove' of tigers beating the jungle would starve. Cubs of the stalking carnivora snuggle together in sleep and play together when awake; it is of necessity that they separate when mature. The 'herds' of lions now and then observed are small."

This "rather obvious" answer to this very obvious and fundamental question seems to me obviously obscure and unsatisfactory. The reference to the herbivores is irrelevant; the essential question is—Why do some species of hunting carnivores behave gregariously and other species behave nongregariously, although all of them grow up in families? Why do some species of canidæ, some wolves and dogs hunt in packs, and, in some cases, form more or less enduring packs; while the closely allied foxes, and most of the carnivorous felidæ, hunt and (except for family life with mate and young) live solitarily?

The only suggestion of an answer furnished by Professor Giddings is that the tiger, being larger than dogs and wolves (and less capable of running great distances) overcomes "of necessity" the mechanical compulsion to cohere which his theory postulates, the necessity namely of quietly stalking his prey. But the fox, which is smaller than the dog or the wolf and equally capable or running incredible distances, nevertheless hunts and lives in the nongregarious fashion of the tiger. And the wildcat, and, I believe, all the felidæ, both small and large, are equally

nongregarious. The "rather obvious" answer, is then no answer at all. The question continues to call for an answer; not only in the case of the gregarious and nongregarious carnivora; but also in the many other cases where animals of allied species or of similar modes of life show this striking difference of behavior, birds such as the rook and the crow, the vulture and the eagle, the starling and the blackbird, the pigeon and the ring dove; insects, such as the hive-wasps and the solitary wasp, the locust and the grasshopper; fishes such as the herring and the perch; amphibious mammals, such as the porpoise and the dugong; herbivora, such as the reindeer and the moose, the sheep and the chamois.

In all cases, no doubt, the difference in respect to gregariousness is correlated with differences in the mode of obtaining food or with other important activities. But it will not suffice merely to point to these and to say that "of necessity" the solitary animal is solitary. It seems indisputable that the gregariousness of the gregarious species is in all cases (or with rare exceptions) innate; that each individual of the gregarious species is endowed by nature with a *tendency* to seek the group, to be uneasy and restless so long as he is isolated, and to join the group straightway when he in any way perceives it.

For, if the *tendency* is acquired, why do not all animals brought up in families acquire it? And why does the gregarious animal brought up in solitary captivity join the herd as soon as he runs free; while the cat, brought up in a den of cats, walks by herself, alone and unconcerned, as soon as she gets the chance to do so?

Evidence still more convincing, if possible, of the specific and innate nature of the gregarious *tendency* is afforded by many instances of animal species in which it (like many other instinctive *tendencies)* shows seasonal variation, being dormant at some periods and active at others. This is the rule with some birds, and also some mammals, which become gregarious only at the season of migration or of pairing.

Is it not obvious that, if sociologists are to deal with such psychological problems as "the mind of the many", they must take these problems seriously and not be content with "rather obvious" answers to them.

Professor Giddings' discussion contains a suggestion which it is worth while to consider—May it be that gregariousness is determined by a specilization of the instinct of fear or escape, the flight-tendency, of the species which exhibit it? The solitary animal when frightened, flees to cover; the gregarious animal flees to the herd. To these generalizations there are, I think, few if

any exceptions. This suggestion, if it were tenable, would not make gregariousness other than instinctive; but it would relieve us of the necessity of postulating a specific gregarious tendency or instinct as a distinct feature of the innate endowment of the gregarious animal. But I cannot see that even this modest concession to the spurners of specific instincts can be made without flying in the face of the facts.

First let us notice that the theory suggested by Professor Giddings, namely that gregarious behavior is a sort of by-product of fear, is utterly untenable. If it were true, gregariousness should run parallel with timidity, which obviously it does not; the proverbially timid hare is solitary, the proverbially brave lion shows some feeble gregarious tendency. The peccary is said to be almost devoid of fear, yet he is extremely gregarious. Nor is the wolf (or the dog) among the most fearful animals, though he is very gregarious. But the most convincing disproof of the theory is afforded by a fact which at the same time negatives the suggestion that gregariousness may be regarded as the expression of a specialization of the instinct of escape in the gregarious species. This fact is that those species which become gregarious seasonally (the gregarious tendency varying from zero to a high degree of activity) show no corresponding or correlated variations of their timidity (that is of the activity of the instinct of escape or fear). The timid birds which become gregarious at the season of migration seem to be more, rather than less, timid at other times, the times when they are not gregarious; and the same seems to be true of those that become gregarious at the pairing season, as for example, the black game, which gather in groups for the antics leading up to pairing.

The hypothesis that gregariousness is due to the modification of the instinct of escape or fear in the gregarious species is further rendered untenable by the fact that many species of gregarious animals manifest it in situations in which we cannot assume the instinct of escape to be in any degree operative. I refer more especially to the gathering and cohesion of the pack in hunting. I do not understand how any reasonable person can doubt that the hunting yelp of the hound or terrier when he strikes the trail serves as a specific call to his fellows; and that the species has acquired the tendency to utter this call, because it secures this result. It seems equally clear that this innate endowment of the species implies as its complement the tendency to respond to the call. Of course, the obstinate denier of instincts may endeavor to show that the tendency to respond by approaching and join-

ing in the pursuit is acquired by each generation, being traditional with the species. My own limited observation of dogs would seem to make this in the last degree improbable. But I cannot cite conclusive evidence in this regard. There is, however, abundant evidence that gregarious animals are endowed with tendencies to utter calls appropriate to special circumstances and with the tendency to respond to such calls with behavior appropriate to the circumstances. I will cite only one piece of such evidence—a first-hand description of the behavior of semi-wild cattle on the prairie by Mr. Hamlin Garland. Describing his boyhood days, he writes: "We became, by force of unconscious observation, deeply learned in the language of the psychology of kine as well as colts. We watched the big bull-necked stags as they challenged one another, pawing the dust or kneeling to tear the sod with their horns. We possessed perfect understanding of their battle signs. The boastful, defiant cries, were as intelligible to us as those of men. Every note, every motion had a perfectly definite meaning. The foolish, inquisitive young heifers, the staid self-absorbed dowagers wearing their bells with dignity, the frisky two-year-olds and the lithe-bodied wide-horned truculent three-year-olds all came in for interpretation.

Sometimes a lone steer ranging the sod came suddenly upon a trace of blood. Like a hound he paused, snuffling the earth. Then with wide mouth and outthrust, curling tongue, uttered voice. Wild as the tigers' food-sick cry, his warning roar burst forth, ending in a strange, upward explosive whine. Instantly, every head in the herd was lifted, even the old cows heavy with milk stood as if suddenly renewing their youth, alert and watchful. Again it came, that prehistoric bawling cry, and with one mind the herd began to center, rushing with menacing swiftness, like warriors answering their chieftain's call for aid. With awkward lope or jolting trot, snorting with fury they hastened to the rescue, only to meet in blind bewildered mass, swirling to and fro in search of an imaginary cause of some ancestral danger."[9]

I have pointed out[10] that the social life of many gregarious animals is largely regulated by two instincts which supplement the gregarious tendency, securing order and harmony in a more economical fashion than could be secured by pugnacity and fear. The same author, Mr. Garland, in the same work describes

[9] "A Son of the Middle Border."
[10] "Outline of Psychology," p. —.

the operation of these tendencies so clearly that I cannot forbear to cite his description. "This brings up an almost forgotten phase of bovine psychology. The order in which the cows drank as well as that in which they entered the stable was carefully determined and rigidly observed. There was always one old dowager who took precedence, all the others gave way before her. Then came the second in rank who feared the leader but insisted on ruling all the others, and so on down to the heifer. This order, once established, was seldom broken (at least by the females of the herd, the males were more unstable) even when the leader grew old and almost helpless. We took advantage of this loyalty when putting them into the barn. The stall furthest from the door belonged to 'old Spot', the second to 'Daisy' and so on, hence all I had to do was to open the door and let them in—for if any rash young thing got out of her proper place she was set right, very quickly, by her superiors."

But Professor Giddings, though in some degree infected with the behavioristic virus, is not altogether a behaviorist. He still believes in the efficacy of mind and seeks to help himself out of the insuperable difficulties of behaviorism by making play with the great principle of his prebehavioristic period, namely "the consciousness of kind." It is the operation of this consciousness which in the human group converts a merely mechanical grouping into society: "A consciousness of behavioristic kinds, combining with and supplementing like-response to stimulation, converts instinctive consorting and consorting by unthinking habit [*i.e.*, mechanical cohesion due to the repellent stimuli of the environment] into a consciously preferential association, and thereby converts a herd into society."

Professor Giddings' "consciousness of kind" has long been before the public and has enjoyed a considerable vogue among sociologists, as an explanatory principle of the fundamental facts of human and animal association. So long as it was possible to accept the words as a somewhat vague alternative expression for the gregarious tendency or instinct, it seemed to be harmless enough. But he has now made it clear that this is not the meaning of the term; he explicity repudiates any specific gregarious tendency and puts in its place, for animals, the mechanical repulsion of all unfamiliar objects, for man, similar mechanical repulsions supplemented by "a consciousness of behavioristic kinds". What then is the mystic virtue of a consciousness of kind? Surely it may just as readily give rise to repulsion and departure as to approach and association. There are Jews who dislike Jews and

who, when "the consciousness of kind" is evoked in them, hastily betake themselves to some place where it may subside. So also there are professors who dislike professors, soldiers who dislike soldiers, colored men who prefer the company of white men, men who prefer the company of women to that of men, boys who prefer men to other boys, blondes who prefer brunettes, and swarthy southerners for whom a blonde beauty is more attractive than all the dark-eyed peris of the south. There are even men who prefer the companionship of dogs or of horses to that of other men. The mere consciousness of kind is in itself not a motive power, a ground of preference, of judgment, or of choice. It is a mere intellectual awareness, a cognitive activity which may evoke either an aversion, or an impulse of attraction, or neither.

It is true that statistics reveal, as Karl Pearson and others have shown, the prevalence of assortative mating, and that on the whole and in general men do prefer the society of men like themselves by race, nation and occupation. But, in so far as these facts are not explicable through special circumstances, such as the greater ease of communication and of mutual sympathy and understanding, they seem to be rooted in the working of the gregarious impulse, which seems to find in the individual man or animal a more complete satisfaction the more similar to him are those fellow creatures with whom he finds himself.

I conclude then that Professor Giddings' attempt to dispense with the instinct of gregariousness is not successful. His attempt commits him to a view of human nature which is strangely like the Cartesian dualism. The animal is a pure mechanism; man is a similar mechanism modified in its mechanical operations by the intervention of a nonmechanical agency, "the consciousness of kind": the herd is natural and mechanical; society is supernatural. Let us, then, admit that naturalists and sociologists alike are well justified in positing an innate gregarious tendency or instinct as underlying the gregariousness of animals and of men.[11]

[11] In this connection I would refer to three recent articles by Dr. R. C. Miller. ("The significance of the Gregarious Habit," Ecology, April, 1922, and two articles on the gregarious behavior of the coast bush-tit, in "The Condor," 1921.) Dr. Miller shows the high utility of the gregarious habit to these birds, its high survival value, and he shows very clearly the operation of what he calls "the spread of impulse" through the flock. By this phrase he denotes the fact that certain forms of behavior (especially flight and concealment and warning cries upon occasion of alarm) excite almost instantly similar behavior in all members of the flock that perceive them. This is the principle which, regarding it in its aspect of emotional excitement, I have called "the direct induction of emotion" or "primitive passive sympathy". It is true that Miller speaks of the gregarious or flock habit, rather than of gregarious instinct. But all his descriptions imply that the tendency is innate or hereditary.

While all of the three authors on whose work I have commented in the foregoing pages recognize the facts of human instinct in various manners and degrees, Professor C. C. Josey appears as one of that numerous band of behaviorists who are for casting out the conception from psychology, root and branch.

His discussion of Instinct [12] has been reviewed in these pages with admirable patience and geniality.[13] In that review, Professor Hocking has pointed out some of the weaknesses of the book: but I do not feel that he has sufficiently exposed its truly remarkable defects. Professor Hocking, admitting of some of the author's arguments against instincts that they have a superficially logical air, has no difficulty in showing that they go wide of the mark. For logicality, in any larger sense of the word, is conspicuously lacking throughout the book. Let me admit first that Professor Josey protests against a number of foolish and fanciful applications of the theory of human instincts that have been made again and again. In so far, his book has a certain value. For example, he rightly objects to the argument that whatever behavior is instinctive is natural and therefore right.[14] But the main purport of the book is a destructive criticism of the view that the innate constitution of man or animals comprises anything that can properly be called Instinct or instincts. The book consists of six chapters. In so far as each of them contributes to the argument against the theory of instincts (which throughout is confused inextricably with the author's protests against foolish applications of the theory),[15] they may be summarized as follows: Chapter I. Some writers have described instincts as forces; but the word force has in great measure become unfashionable in physics; therefore there are no instincts. Chapter II. Many writers have regarded instincts as developed in the species according to the Lamarckian principle; but the majority of biologists now reject the Lamarckian principle of transmission; therefore there are no instincts. A subsidiary argument of the chapter runs: Instincts have been regarded as implanted in the species by God; therefore there are no instincts. Chapter III. It has been fool-

[12] The "Social Philosophy of Instinct" by C. C. Josey, N. Y. 1922.

[13] This Journal, 1923.

[14] Curiously enough, although he seems to have read Dr. E. B. Holt's "Freudian Wish," he does not cite it in this connection.

[15] This intimate confusion of valid protests (against foolish application of or deduction from the theory) with criticism of the theory itself, lends a superficial plausibility to the whole discussion. But it is surely time to recognize that a theory cannot be refuted by showing that various authors have made use of it in a fanciful and inept manner. Yet this is the argument which is most frequently advanced against the theory.

ishly assumed that behavior that is instinctive is necessarily right, etc. (or instinctiveness has been falsely regarded as a sanction of various forms of conduct); therefore there are no instincts. Mixed up with this are such arguments as—both conservatives and radicals find sanctions for their views in alleged instincts; therefore there are no instincts: and—McDougall's view of instincts "must carry comfort to the conservatives": therefore there are no instincts. Chapter IV. The instincts of the human species are supposed to be common to all varieties and to all members of the species; yet human institutions are extremely various in various times and places; therefore we cannot simply explain the existence of any particular institution by ascribing it to the operation of some one instinct; therefore there are no instincts. Chapter V, entitled "Instinct in Psychology" is a polemic against heredity in general, against the ascription of any structure or function of any organism in any degree to hereditary transmission from its forbears. Chapter VI repeats in condensed form and in still greater confusion these several "arguments".

Comment would seem needless; but the facts that the book has been written by a college professor and is widely advertised by a publishing firm of high standing justify a few words of criticism. Throughout the book runs one tediously repeated refrain: every action arises out of the present situation and is a function of the stimuli that affect the organism, therefore the hereditary constitution of the organism may properly be ignored in all explanations of conduct; *e.g.*, "If the activities of an organism are determined by the relations of the organism to its environment, and if out of activities so determined are born impulses and emotions, it follows that the psychological assumptions on which the sanction of instinct is based are groundless" (p. 251).

After numerous passages in which the instincts are combated on the ground that "force" is a discarded and illegitimate conception, the reader is astonished to find that the author makes free use of this conception (or this word) and even asserts that we experience forces; as in this passage among others, "the only forces that need concern us, therefore, are those that are experienced, and the ones that are experienced are definitely determined by the conditions in which they appear. Hence the only forces that can be used in interpreting behavior are the forces that are formed as a result of the individual's experience" (p. 234).[16] But this inconsistency is only one of many equally glaring. Thus,

[16] In all that he says about "forces," Prof. Josey seems to be blissfully ignorant of the difficulties physicists encounter in attempting to give any intelligible account

although his polemic is all directed against instincts and all other hereditary factors, yet: "It is true that the mother's care of her child may be regarded as determined by original nature. No doubt nature provides a mother with a love for her child as surely as it provides her with the organic changes that make the care of the infant possible" (p. 145). Thus also, in the midst of his confused diatribe against all heredity, he interjects: "Such a position may be taken as a denial of the importance of heredity. In reality, however, it is not." And yet, if his argument here is not meant to refute all evidence for heredity (as it seems to be) it does not bear against the theory of instincts. The author's contention is that all development is a function of the environmental stimuli: it may be summarised as follows: here are two cells in the ovary of a deer; both develope; one into a stag on whose head great antlers periodically grow up and which at times is easily excited to furious combat; the other develops into a doe which carries no antlers and which never fights. These differences between the two courses of development, which result in the male and female animals respectively, are due to the environmental stimuli; and it is as absurd to assume that the combative tendency of the male is due to some hereditary factor of his constitution as it is to suppose that the growth of his antlers is due to such a factor.

Professor Josey has grasped the truth that the normal development of an egg can only take place under a suitable environment upon which it may act and react and by which it may be acted upon. In the dazzling light of this discovery, he loses sight of the innate constitution of the organism or egg, and implies that all eggs are essentially alike, from the egg-cell of the worm to that of man. What else can be the purport of the following pas-

of latent or potential energies. His principles would lead him to condemn as a mystic, a primitive savage, or a theologian, any chemist who should speak of latent energy in gunpowder, or should doubt that the explosion is wholly determined by the spark, that the energy of the explosion is wholly a function of the relations between the gunpowder and its environment and of the stimuli that fall upon the former. "Stimuli" he says "do not simply unlock stores of energy. Nor is there a store of energy or impulses in the organism seeking to find expression in various outlets. The energy on impulse *comes into existence* when there is a certain situation in the same way that a certain explosive force comes into existence when the various elements composing nitroglycerine are combined in a certain way and then set off. It would be a mistake to regard the explosive force as existing in the nitrogen, carbon, and other elements. It exists only in the combination, and then only when the combination is treated in a certain way. When instincts and emotions are so regarded we have no difficulty in understanding that they are acquisitions determined by the experience of the individual" (p. 244). So easy to a great intellect is the understanding of organisms! Our author ignores the fact that an organism, even on the most strictly mechanistic or deterministic view of it, is a marvelously adjusted system of potential chemical energies. In short, all that he says about forces is merely a confused and prolix statement of the fact that he himself accepts the strictly deterministic view of organisms in general and of human action in particular.

sage, one of several similar ones? He refers to the "effort to explain our behavior in terms of conditions that affected our ancestors rather than in terms of conditions that affect us." And he goes on: "Criticism of this effort has occupied a large part of this essay, but in reality the criticism can be briefly stated. In fact, it is possible to reduce it to the dilemma. Either the behavior in the individual is caused by the same conditions that aroused the behavior in his ancestors, or it is not. If it is caused by the same conditions, there is no need to make an appeal to phylogeny. If it is not caused by the same conditions, it is hard to understand how the behavior of remote ancestors under one set of conditions can be used as an explanation of the behavior of the individual under another set of conditions" (p. 244). This is a fair sample of the author's logic. I refrain from applying any adjective to it.[17] Or compare the following passages: "The course of development is to be regarded as determined by the give-and-take relations of the organism to its environment" (the context implies that "determined" here means "wholly and solely determined", for, if it does not, the whole argument is utterly pointless): and, a few pages later, we find "the particular ovum and spermatazoon which produced us had an individuality of their own, which has exerted a powerful influence in determining our individual traits of character and physiology." Or compare again these two passages: "What is given innately is a tendency to react in a certain

[17] I would commend to Professor Josey's attention the ancient problem—Does the egg come out of the hen, or the hen come out of the egg? He will have no difficulty in showing to his own satisfaction that hen and egg have nothing to do with one another, because both of them and all their processes are products or functions of "the present situation". To say that the hen is, somehow or in some sense, potentially present in the egg would be, for him, mysticism, primitive animism, religion, or, worse still, vitalism. He poses for us the following brain-racking riddle: If the actions of an organism are the expressions of inherited instincts, then how did the ancestral organism from whom they are inherited manage to act at all before it acquired its instincts? His answer is that, since this hypothetical ancestor must have first acted without instincts in order to acquire them, each of us may and does act in the same way and thus acquires his so-called instincts as the hypothetical ancestor acquired his. Therefore, innate instinct is an otiose conception. Perhaps the logical gem for which we should be most thankful is the following passage: "Explanations in terms of structure are supplemented by the use of instinct regarded as adaptations or habits of the species! The prevalence of this use of instinct makes it imperative that we examine it closely. In what way can instinct regarded as impulses that arose as a result of past conditions be used as an interpretation of present behhavior? *Unless psychology is to abandon its hope of interpreting behavior in terms of causes that are acting here and now*, it should be apparent that appeals of the above sort to phylogeny are quite worthless. This may be clearly shown through a simple consideration: Either the behavior in question is the result of similar conditions that arouse it in the ancestors, or it is not. If the behavior is due to the same conditions in both cases, obviously there is no need to make an appeal to phylogeny, since the conditions which excited the behavior in phylogeny may be regarded as amply sufficient to arouse it in ontogeny. That is to say, living organisms react to the same situation in the same way and for the same reason that their ancestors did. Hence, the ancestors' responses may well be neglected" (p. 188).

way—provided a certain stimulus is presented"; and "In regard to the tendency to regard an impulse as innate because universal, it should be pointed out that universality may be brought about by the world in which man lives and the inevitableness of certain experiences. Universality, then, need not be regarded as a proof of innateness. For example, if it should be found that all living beings are at times afraid, this should not be taken as an indication that there is within all organisms a definite mass of the fear impulse awaiting an outlet. It would be simpler to regard this as due to the fact that conditions of living are uncertain for all living beings, who are at times afraid on account of the world of uncertainty and of painful experiences in which they live."

Professor Josey, in common with some other behaviorists, goes so far as to ask us to believe that sexual interests and activities (or the sexual impulses) are not rooted in any innate factors of our constitution. "When the sex impulse is so regarded, we have no difficulty in seeing that it, like all other interests and impulses, arises as the result of the experiences of the individual, and is to be regarded as such rather than the experiences regarded as the result of the impulse. . . . The persistence and permanence of the impulse, like its universality, may better be regarded as due to the number of exciting stimuli, and the pleasure that accompanies the excitation" (p. 260). Thus we are asked to believe that love of man for woman, that strange madness to the description, exploration, and glorification of which the greatest poets and ten thousand writers of fiction and biography have devoted their utmost efforts, that madness which may raise a man to the loftiest heights or cast him to the lowest depths of degradation and despair, is rooted in nothing more than the fact that the titillation of certain skin-surfaces is apt to be accompanied by pleasure.

It would seem that Professor Josey has somehow come to believe that the theory of instinct makes some such assertions as follows: each germ-cell contains a large number of packets of compressed air (or some such units of energy or "force") which at intervals, throughout the life-history of the organism, detonate spontaneously, each one giving rise, in so doing, to an impulse or to a unit of behavior which is called an instinctive action. Only against some such theory would his polemic have any bearing. But no such theory has been proposed or implied by any intelligent person.

Professor Josey's general attitude of denial to man of all hereditary factors of any social importance places him among the group of "institutionalists" in social psychology; of which group

Professor Kantor seems to be the most prominent member. The view of this group seems to be a natural development of stimulus-response behaviorism. It maintains that, since every human action "arises out of the present situation" and is a mechanical response determined by the stimulus, all social behavior consists of reactions wholly determined by social stimuli; and these social stimuli are in the main social institutions. Therefore, the social psychologist need not concern himself at all with the nature of man, but only with the nature of the institutions that are the stimuli to social reactions. Is not this literally and in every sense a reactionary doctrine? It is the extreme outcome of the dogma of the *tabula rasa*. It would be useless to ask the exponents of this view how they would explain the fact that our domestic animals do not respond to these "social stimuli" in like manner with ourselves.

In conclusion, I would point out that naturalists, social scientists, educationists and psychiatrists continue to make fruitful application of the theory of instincts.[18] It is the adoption of the theory of instincts by human psychology, or more generally stated, of the hormic theory, that, more than any other influence, has led to the present widespread interest of social scientists and social workers in pschology. The fact that so many of them have turned hopefully to psychology of this type and have found it to answer their need of theoretical interpretation of human conduct affords strong presumption that the theory is on the right lines, is an approximation to the truth; for psychological theories must be tested in the various fields of practical application. Such pragmatic testing is ultimately the only way of deciding between the claims of rival theories. And it is the practical workers with human nature, rather than the psychologists in their laboratories, or the philosophers in their armchairs, with whom this decision must lie. They have far more intimate contact with the problems and facts of human conduct than the most acute psychologist in the best equipped laboratory can achieve. Such workers have, in very many cases, applied the theory of instincts crudely and have made unjustifiable deductions from it. But that fact surely does not justify psychologists in turning scornfully from the theory, or roundly condemning it, or refusing to take part in improving it, in correcting its errors and refining its conceptions. It is up to those psychologists who reject the theory of human instincts to formulate some theory of human nature that will take its place

[18] As a good recent illustration of the fact I make reference to Professor L. D. Edie's recent book, "Principles of the New Economics."

and prove more fruitful for the social scientists and the social workers. Until they can do that, their scorn for the theory of instincts must continue to make them appear a little ridiculous. Yet hitherto no constructive suggestion of any value in this direction has come from their camp. The pure behaviorists, followers of Dr. Watson, are in a position exactly comparable to that of the physician who should wilfully maintain a strictly empiric attitude asserting that he needs to know nothing of physiology and anatomy. Such a physician would assert that all he needs to know is that, when he gives this or that drug, a certain effect follows; that he can generalize these observations and, by so doing, establish all the laws or rules that he needs for the guidance of his practice; and that he therefore refuses to concern himself with the interminable disputes among physiologists about the chemical and other problems of the organism; that it is enough for him to know as empirical generalization, what responses the human organism make to his "stimuli" (his drugs). The strict behaviorists, in rejecting psychology, in repudiating all attempts to describe human nature, are proceeding in a strictly analogous fashion. It is true that some of them make much play with the term "action-pattern" and that some of them in weak moments may talk about synaptic resistances. But the purely empiric physician might equally well generalize his observations on the effects of calomel in a statement of its action-pattern and in weak moments might even refer to the liver.

It is perhaps worth-while to point out that behaviorism enjoys the appearance of a much larger popular success than it can truly claim; this for two reasons. First, there is a widespread popular impression that it is the latest thing in psychology and that, if one wishes to appear to be up-to-date and in the swing, one must do lip service to behaviorism. Secondly, there are many practical workers, physicians and others, who express a general approval of behavioristic psychology; but who, in so doing, mean merely to endorse psychology of the type that does not neglect to observe and take full account of the facts of behavior, that does not rely on introspection alone for its data. That this is their meaning when they speak approvingly of behaviorism is especially clear in the case of those who pretend to combine it with Freudian psychology and the practice of psychoanalysis. For it is not open to question that the psychoanalyst makes use of the introspective reports of his patients, and that the Freudian theory, in spite of the deterministic claims sometimes made for it, is a form of the hormic theory of human nature.

DISCUSSION OF PROFESSOR McDOUGALL'S PAPER*

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I ALSO was surprised upon reading "Human Nature and Conduct" to note that Professor Dewey had apparently reversed himself on the matter of instinct. It is not strange, therefore, that there is the dualism of emphasis upon instinct and habit in this book which Professor McDougall mentions. It is due, I believe, to the fact that he has not yet made a complete adjustment between his new and old views on the subject.

Nevertheless, I believe that Professor McDougall overemphasizes this dualism and conflict. When Dewey emphasizes the importance of habits he is thinking of the finished acts, of man acting as a trained, character-formed member of society. When he stresses native impulses he is thinking of the biological raw material (reflexes, random movements, etc.) out of which and upon which future habit-formed conduct must be built. Dewey does not deny the existence of the native impulses, but he minimizes the importance of their study relatively, I think, to the study of the environment.

He stresses the study of the environment, of the social pressures, because he regards the native impulses as relatively fixed, as practically never (except under very great stress or in unusual situations) coming into unmodified and direct overt expression. The environment, with its social pressures, is the changing and active factor in the building of conduct and character, hence the supreme importance of the study of its content (social situations) and of its product (habits).

In so far as he is opposed to the study of the underlying native, or instinctive content, merely because it never or practically never appears in pure unmodified form in conduct, I of course cannot agree with him. I have emphasized in several publications my own view that we need badly to study man's native equipment, and that this equipment does not consist of Mr. McDougall's 7 or 12 or 13 or more instincts (which are really only habit and value complexes) nor of Professor James' 40 or 50 instincts, but of hundreds or even thousands of much simpler processes, reflexes, etc., which underlie habits and are lost in them in their completed form. But the fact still remains, and Dewey is right, in this

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regard, that habits—the finished content of conduct—and the social pressures which produce habits are the most important objects of study, for the sociologist at least, if not for the psychologist.

I would, however, make this concession to Mr. McDougall's criticism of Mr. Dewey, that while the latter is in the main correct in his viewpoint, I don't believe he has yet analyzed his subject to the extent of knowing just why he is correct. He is still in process of swapping intellectual horses in the middle of our modern stream of psychological thought. I think one of the sources of Mr. Dewey's confusion arises from the fact that, having had to abandon the old concept of highly complex instincts, which he formerly held in common with Mr. McDougall and others, he has not yet proceeded to the further analysis of substitute instinctive content. He has not pushed his analysis down to the relatively innate native content processes or raw materials out of which habits are built under environmental pressures, and he covers up the inadequacy of his analysis by denying its necessity—a device not unknown even to scholars, however little self-consciously they may use the device.

Of Mr. McDougall's four general criticisms of Dewey, I would say:

(1) I see no objection to speaking of habit wherever any physical or mental redirection or reorganization of the individual's adjustments may occur, whether this redirection and reorganization be of movement, ideas, or emotions. Dewey's insistence upon getting back to the chemical and physical processes of the organism which account for the redirection or reorganization of the individual seems to me to be in keeping with a universal and laudable tendency in science to displace wherever possible mere verbal concepts with concrete analysis of underlying causal phenomena. Only thus is progress in any science made.

(2) I wonder if so much of a distinction as Mr. McDougall urges between activity and disposition is justifiable. Are not the overt or visible activity and the disposition or neural organization of the act merely the outer (visible) and the inner (invisible) aspects respectively of the same total act? Each act has its neural as well as its muscular organization. That is, activity is not merely muscular, but it is neuromuscular, and the neural organization aspect of the act may become cerebral. If, then, redirected or reorganized activity (which we call habit) involves reorganization of disposition (the neural side) as well as of overt response, why should we not apply the term habit to both of these aspects

of the act? Is not the fallacy really in assuming that all dispositions are inherited and therefore cannot be acquired?

(3) Admitting for the sake of argument that impulses may be characterized in terms of accompanying emotions, I deny that this fact refutes Dewey's contention; for the criticism has point only if we hold with Mr. McDougall that emotions must be organized only within the heredity. That view, as I have indicated in other publications, I regard as untenable.[2]

(4) I believe that we cannot escape looking upon sentiments and other affective sanctions to conduct as acquired, hence it seems that we must regard habits as carrying just as much of their own impulsive force or urge as instincts are supposed to carry according to the instinctivist theory.

Regarding Professor Dunlap's substitution of desires for instincts, I agree thoroughly with Mr. McDougall that he has in the main only changed the name. However, I think one improvement must be recognized in this change of name. Obviously, the desire is a composite of experience as well as of inheritance, and therefore the desires theory makes room for the functioning of habit and of the organization of the control of conduct under environmental pressures in a way which instinct cannot provide for. However, I believe that the desires classification of Dunlap (and of many other writers, especially of the sociologists who have used it, such as Ward, Ross, Small, Ratzenhofer) is open to the same fundamental objection as the complex instinct classifications, in that all such classifications merely block the way to further analysis of conduct and of the causes and organization of conduct in a social world. They substitute mere suspended verbal concepts for data and thus transform the description of conduct into a barren logic of unreal behavior concepts or an intellectual puzzle. What we really need to do is to get back of such artificial concepts, treated as ultimate causes, to an analysis of those true ultimate causes of the redirection of conduct, both instinctive and environmental, both biological and social, which have resulted in this nodulation of experience which we mistakenly objectify as indivisible realities, such as the complex so-called instincts and desires. Let us analyze these so-called instincts and desires (which are not really original and underived at all) and see what has organized them as they are. When we discover these organizing forces we shall have in our possession the data with which to

[2] See, also, chs. 18 and 19 of a forthcoming volume on Instinct, Henry Holt & Co., New York.

proceed in the creation of other desires and especially of useful motives to action, and not until then. And here at this low level of causation lie the fundamental problems of sociology, in an analysis of the root causes of conduct. The concepts of the complex so-called instincts of Mr. McDougall's brand and of the desires of Mr. Dunlap's brand are but screens in our way, obscuring the real underlying problems of conduct and character control.

In conclusion, I should like to state my regret that Mr. McDougall has seen fit to turn his paper into a review of two publications instead of undertaking an independent and constructive treatment of his announced theme.

I should like to answer the question in his title by saying most decisively for myself that the sociologist and the social psychologist cannot dispense with instincts. The concept is as necessary as that of environment. But I do not believe that Mr. McDougall's and most other classifications of so-called instincts represent instincts at all. They are mainly the products of experience. They are, therefore, primarily habit complexes or even abstract value complexes. We have now reached a stage in psychological analysis when we can go back of these verbal concepts to an investigation of the underlying and much more simple and elementary constituent native processes in man.[3]

[3] For a more extensive treatment of this point of view see the writer's article, "The Misuse of Instinct in the Social Sciences," *Psych. Rev.*, March, 1921.

THE INSTITUTIONAL FOUNDATION OF A SCIENTIFIC SOCIAL PSYCHOLOGY*

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UNDENIABLE is the fact that a tremendous need exists for a sound social science. Yet who would be so bold as to assert that such a much needed discipline actually exists? Unfortunately, what is to-day considered as social science constitutes for the most part a mass of unverified opinions or else trite inconsequential facts. And so it is with great envy that the social scientist looks across the border of his field to the natural science domain. For the natural scientist has established for himself many principles leading not only to the understanding of facts but also to the control of them. How different is the situation in the social science realm! So great and so pressing a series of problems as only human phenomena can present us with, is paralleled but by a slight and ineffective understanding of social facts.

And yet conditions are not as hopeless as they appear. Here an earnest warning is in order. When we contrast the natural and social sciences we must be very careful not to embrace the myth concerning the entire sufficiency of the physico-chemical disciplines as over against the complete deficiency of the social sciences. In the first place, the natural scientist is not always so rigid in his critical foundations as he might be, even though he is dealing with comparatively simple materials. On the other hand, the social scientist has or can have a vast amount of fundamental information concerning human phenomena, even though the circumstances of these phenomena may prevent him from making full use of such knowledge. We therefore deny the existence of an impassible barrier between the domain of the social and the physicochemical sciences, implied by the use of the contrasting terms natural and social. All sciences are or should be natural. No science deals with anything but concrete and observable phenomena.

Why is it, we ask, then, that so far, the methodological techniques of the social sciences have proven so much less adequate and less satisfactory in investigating facts than is true of the so-called natural sciences? Without doubt there must be some principle that has enabled the natural scientist to make such pro-

* Read before the American Sociological Society at Washington, D. C., December 29, 1923.

portionately larger strides in the investigation of phenomena than is true for the social scientist. This principle we believe to be that, to a satisfactory degree the so-called natural scientist has succeeded in extruding from his domain animistic principles. As we have already suggested, the ability of the natural scientist to rid himself of these animisms is largely owing to the comparatively simpler nature of his data. Historically and traditionally the objects which the physicist and chemist investigate have lent themselves much more readily to description and interpretation as they actually occur, than happened to be the case with the data of the social sciences. In consequence, as soon as the physicist or astronomer began to confine his investigations to the actual interactions of observable phenomena, he soon developed information and principles which were not only verifiable and firmly established, but principles which could also be used as stepping stones to further knowledge and control. And so historically it was the physicist who first came to be the natural scientist.

How different, on the other hand, has been the situation in the field of the human sciences. Here the data have not been investigated as they naturally occur and operate, but have been handled in some manner as non-natural happenings. Even to-day, the human or social sciences are still choked with innumerable conceptions of the animatistic type. Such conceptions of supernatural forces, because of their partial concealment, are all the more insidious in their effect. They definitely prevent us from actually arriving at accurate information concerning our data. This unfortunate situation is nowhere so prominent in the field of social sciences as at the point where they border upon and make use of psychological principles. This is true because the social scientist believes himself justified in keeping such animatisms by assuming that their respectability is guaranteed by psychology.

In spite of the fact that psychology has really nothing to do with such animisms we find the field of the human sciences literally weighted down with conceptions of psychic forces and psychic processes. Most frequently such psychics are constantly and conventionally employed as explanatory principles to account for the development and operation of social or human facts. It so happens that the instincts are among the most obnoxious of these animistic conceptions now in use. Whichever of the numerous meanings of instincts one may accept the least harm that any of them can do is to absolve us from the arduous investigation of numerous intricate but essential psychological facts, necessary for the understanding of human conduct. As a matter of fact, however, always

in the final analysis the conception of instincts comes down to supernatural forces. To be plain, instincts constitute the white man's version of what his colored cousins variously call orenda, mana, wakanda, or manitou.

Thus abjuring the employment of any animistic principle in the study of human facts we may now suggest a more positive conception which may play a part in the firmer establishment of social psychology as a science. In this manner we plan to join forces with those workers in the social sciences who are interested in what we may consider as the psychological angle of human phenomena.

Once more we may be reminded that the indispensable methodological minimum for any form of scientific investigation is the isolation and observation of the interactions of at least two actually observable things. In the psychological domain we can very definitely conclude that these interacting things are on the one hand, the persons who perform reactions (or those reactions themselves) and on the other, the objects, conditions, and events constituting the stimuli for those reactions. Such phenomena are of course as directly and as readily observable as the data of any science. The origin of these phenomena can also be just as definitely traced out through the person's prior contacts with his stimulating objects and conditions. In this way we can delineate in a verifiable manner the actual development of memories, thoughts, wishes, beliefs, habits, feelings, willings, and desires of persons. Not only can we describe accurately the different types of specific acts that we perform but also why such acts continue to operate and why they cease to function. In detail, this means that the psychologist studies the reactional history and development of persons throughout their various contacts with their psychological environment. It is in this way and in this way only that the psychologist learns the nature and operation of the complex action of the human and other psychological organisms. And all these facts he discovers without the slightest resort to false and falsifying animatistic forces.

In brief, the psychologist is now able to study the data with which he deals as actual behavior of some definite and observable thing in precisely the same way as the physicist, chemist or any other natural scientist does. Obviously such a study cannot fail to reveal whatever similarities there may be between the two types of facts, as well as the very fundamental differences between the behavior of the data of the physicochemical domain and the behavior of psychological organisms.

Now it is not only general psychology which may be considered as a definite natural science discipline but social psychology as well. For the data of social psychology merely constitutes particular types of psychological phenomena, namely, more complex forms of human behavior such as comprise in part our social, political, esthetic and economic activities. Just how do cultural or social reactions differ from non-cultural or individual psychological responses? The answer is merely in specific morphological and functional details. Individual or non-social responses, such as reflexes for example, differ from social reactions in no other way than hydrocarbons differ from carbohydrates in the chemical domain, or, as a gas differs from an electrolyte. In each scientific analysis we find merely that a different type of organized phenomenon interacts with another such natural thing.

More marked, however, is the difference between the stimuli for cultural conduct and the stimuli for non-cultural reactions. This difference we signalize by the use of the name institution for the stimuli of cultural reactions. The problem of social psychology, then, is to study the origin and operation of cultural responses to institutional stimuli. It is precisely through such an exact study of the interaction of persons with institutions that we can arrive at a series of fundamental principles for a scientific social psychology. These principles constitute the psychological materials which more particularily, though not exclusively, concern the sociologist, economist, anthropologist, and other students of human facts. In detail, it is this principle of interacting institutions and persons which provides these students of human phenomena with the answers as to how and why for instance we are or are not believers in God, or a particular god, why we believe in war or in the law of supply and demand, why we wear trousers or skirts, why we have one wife or husband or more, why we are humble and resigned as orientals, or arrogant and assertive as occidentals, why we speak English or Chinese, why we have few children or many, and so on throughout every instance and phase of our actions whether beliefs, thoughts, habits, desires, or aspirations, or whether classified as moral, esthetic, political, economic or religious activity.

Is it not plain, then, that we are entirely able to dispense with mystic potencies and powers or animatistic forces of any sort when we are seriously attempting to understand such phenomena? The very fact of studying these phenomena as definite interactions of human beings with their stimuli conditions forces upon us the conviction that such human facts are not the workings out of

primordial forces inherent in the nature of things or human beings. Rather such a study convinces us that human phenomena are the cumulative effects of the interaction of the natural human being with the no more natural objects among which he actually finds himself. For let us observe that institutional stimuli, no matter how complex they may be, or how much the product of human manipulation or contrivance, are just as natural as the astronomer's planets or the chemist's compounds. Plainly, in the study of the development of human beings and their correspondingly developing institutions we discover the natural foundations for and the natural evolution of our complicated human conduct and institutions. Moreover, these natural foundations we discover in exactly the same way as the biologist traces out the development of the biological organisms beginning from the first contact of two elementary cells, and continuing through the contacts of the product of their union with the food, atmosphere, and other surrounding conditions. In no different way, therefore, than that of any other scientist, can the social psychologist trace out the development of our complicated social behavior from simpler types of conduct, until he comes down to the final and most elementary type of psychological action which is the response not to institutions but to individual stimuli, such as unconventionalized stones, trees, houses, etc.

Now we face the necessity of more definitely describing the two interacting things of social psychology, namely, the complicated cultural response with which the social scientist is mainly concerned, and the institutions constituting the stimuli for such responses. Let us consider first the cultural reaction. Immediately we might point out that although cultural responses may differ so widely in morphological character from non-cultural reactions as the pain reflex differs from the act of praying, the primary differences between cultural and non-cultural reactions are functional in character. For instance, the morphological character of my individual reaction of believing that the ventilation in this room is defective, is the same as the morphological character of my cultural act of believing that a monarchy is not a good form of government. That is to say, as belief responses these two actions, when dissociated from their specific stimuli conditions, differ little. When we do include their respective stimulational conditions the variation between these two reactions is enormous. Still greater is the difference between cultural and non-cultural reactions when we consider the reactional biography or history of the person during which the actions were developed.

For it is only owing to the person's different contacts with his stimuli that the individual and cultural types of reactions function as entirely different forms of human facts.

So far as the non-cultural action is concerned my contact with the stimulus object results in a private and unique experience and the acquisition of a purely personal mode of conduct. Contrariwise, the contact with the cultural stimulus or situation is quite different. In that case the reactions I perform are owing to a definite cultural or social experience which we call the culturalization process. Why I have this reaction and why it operates is explained on the basis that I as a particular individual have acquired my behavior equipment under certain social or cultural auspices. These auspices in detail amount to the fact that the individuals with whom I live or have lived have in the course of their contact with their surroundings acquired or built up specific types of behavior. Thus if I had been a German of 1913 I most likely could not have had as part of my equipment the belief that a monarchy is not the best form of government. How entirely natural, that is to say, how much a matter of interaction of persons and stimuli conditions, cultural conduct really is, we may observe from the fact that not all Germans had this belief as part of their equipment. Nor do all Americans now believe that monarchy is not the best form of government. What is true of this specific illustration is true of every actual cultural response. Here we have merely run into the fact that there are all sorts of cultural groups existing in any particular community and that these groups overlap and interpenetrate. We want to suggest again the entirely natural and concrete development of our national, racial, and other group cultural responses. Consequently in our investigation of such reactions we need not inject into them any animatistic or other mystic forces or powers.

Now we may come to grips with the stimulus for cultural behavior, or with the problem of the institution itself. Just what is an institution? We answer that an institution is a common stimulus, that is to say, any object or situation the contact with which results in the building up and later operation of conventional and conformity responses. An institution is then nothing more nor less than a stimulus in exactly the same sense as any object in any other department of psychology. An institution is an inciter to action, both in the sense of acquiring a response and in prompting it to operate after its acquisition. Such stimuli or institutions may be well illustrated by the elementary facts of language acquisition and performance. When I first began to

perform indirect or referential reactions to things, I acquired the verbal reaction milk when I wished or needed to refer to that object. This specific reaction as an actual human occurrence was acquired by me because of the specific verbal stimulation of those individuals among whom I lived. Had I been brought up among other individuals, those namely who had built up or were in contact with other kinds of language institutions, I would then have built up the reactions milch, lait, or any of the other thousand types of language action. Here is an entirely natural situation which we can study in just as rigorous and absolute a way as the operation of a lever or the action of a toxin upon a biological organism.

Various kinds of institutions exist. In our illustration the institutional stimulus, or the word milk, was itself an action. It happens that this particular kind of institution is among the most elemental and constant that we find among the whole range of human activities, for such stimuli and their coördinate responses are common features of the activities of all mankind. Besides language institutional stimuli we also find among all peoples other ways of acting such as dancing, worshipping, courting, eating, kissing, cooking, dressing, etc. All these actions constitute institutional stimuli for the building up of cultural reactions. Thus the whole range of beliefs, ceremonials, thoughts, ideals and technical, political, and esthetic activities of individuals constitutes the inevitable institutions for the developing of cultural responses in the newborn infant or the immigrant adult. Reactions of course constitute only one single type out of a great many such institutions or stimuli. Others comprise things of all sorts, houses, trees, building materials, sun, moon, stars, women, men, etc., etc.

Institutions, then, differ from other stimuli merely in the kind of functional properties which they have. They differ from other stimuli in calling out conformity and conventional responses. This means to say that the same natural object normally serves different functional purposes in different groups. Thus, for example, such an object of nature as the sun may or may not have an institutional function in any particular group. When it does not have institutional character each person reacts to it in a purely individual or non-cultural manner. Such happens to be practically the situation among the urban populations of Europe. When the sun does have an institutional stimulus function each person reacts to it in an ingrained common fashion.

Let us now turn to the question as to the origin of the numerous institutions in every human community. The source of both the

origin and development of institutions follows from the principle that they are merely the surrounding objects, customs, ideas, etc., which through the actions of individuals have taken on certain cultural stimulational functions. Briefly, institutions are originated through the development of newer forms of actions than have previously existed in any particular community. In any group we may observe how a particular institution, such as a religious stimulus, is originated by the modifications in action owing to economic or military conduct. Think only of the different Jehovahs and Zeuses which directly reflected the changing economic and political conditions of the early Hebrews and Greeks. Conversely, changes in military institutions may be originated through conduct developed in contact with religious, economic or moral institutions of particular sorts. Emphatically, then, institutions originate merely through extreme modifications of action. The underlying principle of institutional change involves the same principles of action that make for the smaller changes of simpler developments of institutions. The latter are merely less striking or radical in form. Similarly, the conservation and preservation of institutions operate upon the same principle, namely, the repression or non-continuation of activities which would tend to introduce new forms of conduct with the consequent endowment of the stimuli with new stimulational function. Another very striking mode of appearance of institutions in a particular group is that of borrowing or other overt transmission from one group to another of objects, techniques, ideas, and other institutions.

All the changes in cultural reactions and their concomitant modifications of institutional stimuli may be characterized as historical developments. This historical interaction of responses and stimuli with its concomitant modification of both the institutions and cultural conduct has of course definite influences; so that an adequate study of the growth and development of cultural conduct and institutions indicates the presence of definite conditions tending to give particular direction to the historical development.

Among the simpler conditions determining and influencing the line of cultural development are the actual presence of certain physical objects in the surroundings of individuals. Thus we find that particular temperature conditions, geological formations, the presence of minerals, water courses and frontiers, may have very direct influence upon the historical development of culture. These simpler environmental surroundings operate ordinarily by becoming first the stimuli for general psychological reactions and later

for cultural conduct. The cultural history of social psychological processes are conditioned then by natural or non-cultural phenomena.

Very similar in their influence upon the cultural history of institutions are non-psychological human facts, such as the economic levels of populations, military movements and occupations, intellectual and religious status of a people, etc. Such facts, though not unrelated to conventions and institutions, must, because of the way they operate, be considered as natural phenomena precisely as physical objects are.

More complex in their influence upon cultural history are the non-cultural or individual psychological activities of persons. Here we refer to the activities of men and women, loves, hates, intrigues, etc., which have an effect perhaps primarily upon the laws, customs and similar institutions, and secondarily upon other sorts of cultural conduct and cultural institutions.

And finally we might indicate the very direct effect upon cultural history of actual cultural factors. Having built up particular kinds of cultural responses to one institution means almost inevitably that those responses will directly influence our reactions to *other* institutions, with the consequent modification of the latter institutions. Immigrant children acquiring reactions of independence as responses to the freer economic and social institutions of the new country will not tolerate the existence of the imported institution of rigid paternal dominance in the family.

By tracing out in this manner the detailed descriptions of human conduct through the various causal conditions operating upon it we can arrive at a thorough understanding of social behavior. Incidentally we have observed that such a detailed study rigorously preserves the distinction between what are and what are not psychological processes. This means to point out emphatically that psychological processes and data are not by far the exclusive facts of the human sciences.

Does such a natural science conception of social psychology still leave us with unsolved problems? It may be argued that our very insistence upon specific responses to specific stimuli limits our descriptive capacities. In other words, one may argue that true enough we have explained why it is that we participate in particular religious ceremonies and not in others, why we share particular beliefs and not others, why we have so many children and do such things with them and not others. But it may be said there still remains the questions why do we have religion at all, why do we have children, why do we live in groups, etc. In one

sense we admit that we are not able to solve these problems nor are these problems solvable by the principles we have mentioned nor the facts which they sum up. The sense in which we admit this failure is, however, one that does not carry us beyond a natural science description of whatever facts we may study. When we inquire why we have religion at all it may be that we have merely pushed the study of our facts so far that it has left the specific domain of social psychology and has thus gone beyond our province. When we drive the problems of gregariousness and reproduction out beyond the domain of cultural phenomena we merely push them into the field of biological structure and biological adaptation, that is all. In the case of religion the immediate outer boundaries may still be psychological though non-cultural. For the most part to carry out human problems this far represents merely a broader interest than can be satisfied by a single special scientific investigation. But although such problems do not result in a complete check upon one's investigations still no great courage is required to face the fact that in innumerable instances in every domain of science there are problems not immediately open to solution by the methods and ideas that we have at present. Certainly such a condition does not warrant us in injecting even in the slightest degree into our scientific domain any mystical and magical explanatory principles.

In the human sciences we cannot hope to avoid conditions similar to those the natural scientist faces. For example, with what attitude would one ask a physicist or an astronomer to explain why there are planets and why they operate upon each other according to the gravitational law? Is not such a question merely meant as a stimulus for the scientist to go deeper or wider into his problem if he can, and to produce another and more profound set of coördinations of actually observable phenomena? Incidentally of course we expect the scientist to resist with all his powers the shattering of the natural science code which demands the study of interacting things.

And finally we should like to suggest that when we do come to these refractory facts so baffling to our observational powers, and need to construct some hypothesis in order to complete the descriptive picture we are attempting to construct, we must be governed by exactly the same rules as in our description of directly observable facts. No hypothesis may be framed which implies the existence of non-natural phenomena, or which introduces principles not derived from actual observations at some other point in the investigation. Certain it is that to bring such

animistic conceptions as instincts into the description or explanation of human phenomena means decidedly to commit this breach of the scientist's code. To study cultural phenomena in their psychological implications as the responses to institutional stimuli we believe makes entirely unnecessary, if it does not preclude the possibility, of thus violating the canons of a rational and valid science.

DISCUSSION OF PROFESSOR McDOUGALL'S AND PROFESSOR KANTOR'S PAPERS *

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IT SEEMS to me that much of the confusion noticeable in the writings of the last few years on the rôle of instincts in sociology is due in part to a lack of comprehensiveness of approach to the whole problem. To avoid confusion two distinct problems must be kept separate. One is the nature of instinct as a part of the inherited psychological equipment. The other is the relation of instinct to culture.

Some observers of social phenomena have found the factors more or less generally thought of as instincts so variedly manifested that they have been led to question whether there are such things as instincts. To others tradition is seen as so important an influence that they have claimed that instinct is of no significance for culture. Still others think that original instinctive nature is so powerful that it determines our social institutions, and hence for this reason that the nature of instinct is most important for sociology. These observations concern chiefly the second problem cited in the preceding paragraph and throw relatively little light on the first problem, namely, the nature of instinct as a part of the inherited psychological equipment, except as to its modifiability. But the fact that instincts are modifiable does not necessarily mean that there are no such things as instincts. There may, of course, be aspects of the nature of instincts of relatively little importance for sociology. Such would be the case with reference to the chemical nature of instinctive activity. It may make some difference to the sociologist as to whether instinct is mechanistic as Watson thinks or hormic as McDougall claims; or whether there are three or three hundred instincts, or whether there are any separate instincts or not; but the difference to the sociologists as to which of these conceptions are true is no doubt less than the psychologist thinks. So, also, it may make little difference to sociology as to whether the instincts are found to be consolidations of reflexes or something different, or as to what may prove to be the true relation of instinct and emotion.

The sociologist must look to the psychologist for a description

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of the nature of instinct and he hopes that in time the concept may be clarified and made definite. My own interpretation of the trend of the evidence is that it strengthens the physiological-mechanistic-reflex-concept, and that patterns of activity are quite interrelated and not only numerous but of great variety in nature. But whatever the final delineation may be, I think sociologists are most interested in the degree of adaptability of instinct through environment and particularly through cultural experience.

There is much psychological evidence on the learning process, habit and the conditioned reflex; but among psychologists, particularly students of animal psychology and physiological psychology, the influence of culture over instinct is likely to be underestimated and the determining rôle of instinct in the creation of cultural phenomena is likely to be overestimated. The student of comparative social institutions is certainly impressed with the power of tradition to overlay instinct, and the variety of custom certainly raises grave doubts as to any domination of instinct in creating social institutions, except, of course, within broad limits.

From the sociological standpoint, then, Dewey's procedure in treating habit first and original nature second and his reluctance to classify separate instincts are quite understood. So also, from this point of view there is no quarrel with his use of the terms, impulses and habit, in a general sense. There is indeed much to be said for the argument that habits, learning, adaptability, custom or culture are of more significance in explaining the variety of social phenomena than is a settlement of most of the moot questions as to the nature of instinct as a part of the inherited psychological equipment. If man's instincts were as invariable as those of the lower animals, then social phenomena would be largely determined by instinct and the sociologist would be more dependent on the psychologist for an account of the nature of the inherited mechanism.

Still I think that the sociologist should hardly take so extreme a position as that of Kantor. I don't see how the sociologist can escape being interested in original nature. Kantor's own formula of response to institutional phenomena, implies not only institutions but also a responding mechanism. The responding mechanism varies in a great many different ways in different social problems, such as race, eugenics, religion, crime, leadership and the family. Hence it is a variable factor; and if this variation is correlated with variation in the social phenomena, then we must be interested in original nature. There are two sides to all social

phenomena, original nature and culture. The culture historian may be only interested in the variations of the cultural factor and the psychologist may be interested chiefly in the variations of original nature. But a full understanding of most social problems involves a consideration of both factors. Original nature may vary over time as in progress, or by races as in race problems, or by individuals as in crime or insanity, or by particular motives as in politics or economics.

THE GROUP FALLACY IN RELATION TO SOCIAL SCIENCE *

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THE theory that a crowd possesses a mental life resulting purely from aggregation and superadded to the mental processes of its members seems to have perished at the hands of progress in social science. Its ghost, however, has been exceedingly difficult to lay. The convenient and picturesque manner of speaking in terms of groups as wholes has infiltrated much of our social thinking. The subtlety of this influence may be partly explained as follows. When we read that a certain army captured a city, or a certain football team defeated a rival team, the language, though not precise, is not misunderstood. It is clear that it is solely the individual soldiers or players who combined their efforts and accomplished the feat described. When we read, however, that the crowd becomes violent, emotional, or intolerant, or that it thinks in images or lacks reason, we are in danger of being misled into thinking that it is a crowd mind rather than the minds of individuals which is accountable for these phenomena. So long as the language is intended and accepted as purely descriptive and metaphorical no confusion exists. But the transition from description to *explanation* is in such cases very subtle, and not always recognized. The intangibility of the phenomena combines with the collective or abstract use of language to produce an error. This error is the attempt to explain social phenomena in terms of the group as a whole, whereas the true explanation is to be found only in its component parts, the individuals. Such an explanation is in itself false. We do not need a super-mind hypothesis to explain mob action, if we but take the trouble to study the individual in the mob and observe how he is responding to the stimuli afforded by the behavior of his fellows. This neglected field of study is being brought to the foreground by a modern social psychology whose data comprise the social behavior of the individual. The crowd mind theory is not only false; it retards in a special manner the discovery of the truth. Pointing toward the whole rather than the parts it withdraws attention from the latter and incites thought in precisely the wrong direction.

The influence of the social mind theory is as widespread as it

* Read in slightly abridged form before The American Sociological Society, Washington, D. C., December 29, 1923.

is subtle. In the various guises it has assumed it has become amazingly protean. We find a counterpart of it in the social organism metaphor of Plato, as well as in the modern varieties evolved by Spencer, Espinas, and Münsterberg. In these alluring metaphors much space is given to developing a large conception which leads us nowhere; while the true origin of social organization, the psychology of the individual, has been correspondingly neglected. We meet with the collective error again in the social systems of philosophical idealists. Here it plays freely into the hands of a metaphysics of the objective nature of mind. Professor Bosanquet, for example, argues for the existence of a "general will" which gives definition to individual wills.[1] We meet with the fallacy again in theories of government and morals, where it takes the garb of national spirit, and absolution in conceptions of the State, the Law, and the Right. The abstracted social mind is put back again into the individual as the "collective" or "bee-man" of Sageret [2] as well as in the semi-mystical theories of Sidis [3] and Trotter.[4]

A scholarly attempt to put the social mind hypothesis upon a tenable basis has recently been made by Professor McDougall.[5] In his view, which he calls the "Group Mind," the social reality is alleged to exist not in collective consciousness nor behavior, but in an organization or structure of social relationships which can be conceived to exist only in mental terms. A university, for example, is not comprised in its material aspects, nor even in its personnel. It is systematized relation of individuals and traditions, intangible, but *real* and *mental,* and carried along independently of particular individuals. Our answer to this is, of course, that, although not dependent upon particular individuals, this organized tradition is dependent upon *some* individuals. It exists in the attitudes and consciousness of these separate persons, just as it did in Professor McDougall's mind while he was developing the illustration. So far as we know the group mind has no other form of existence than this, namely in individuals; nor could we conceive of it exerting any effect upon the social order except through these agencies.

But perhaps the best way in which to deal with the fallacy under consideration is to expose its inadequacy when put to the

[1] The Notion of a General Will." *Mind,* 1920, 77-81.
[2] "Remarques sur la psychologie collective." *Rev. Phil.,* 1919, Vol. 87, 455–474.
[3] The Source and Aim of Human Progress. JOURNAL OF ABNORMAL PSYCHOLOGY AND SOCIAL PSYCHOLOGY, 1919, Vol. 14, 91–143.
[4] *Instincts of the Herd in Peace and War.*
[5] *The Group Mind.*

test of explanation. Accepting at face value the social psychology of Le Bon, suppose we proceed, equipped with the concepts of crowd intolerance, emotionality, irrationality, and the like, to explain the actual mob phenomena of modern society. We should find that our terms merely describe, they do not explain. We are ascribing the actions of the mob to things which mobs generally do—which is mere tautology. There is at hand no means for explaining the differences in the behavior of different crowds, since all are emotional, irrational, and the like. Why should the excitability of one crowd express itself in whipping non-church-going farmers, that of another crowd in looting grocery stores, and that of still another in lynching negroes? These questions throw into relief the necessity of delving deeper for our notions of cause than terms which describe the crowd as a whole. We must seek our mechanisms of explanation in the individuals of whom the crowd is composed.

We should fare no better if we were to depend upon the group mind theory for notions of cause. The "group mind" in the sense employed by its exponents is a static mind. It is a result, not a cause, of individual behavior. It offers no provision for explaining social change—change, that is, in the group mind itself. One might, for instance, ask how such a change could have been produced in the organized mental life of a group as the recent change from the tradition and practice of an alcoholic era to a régime of prohibition in our own country. For answers to such questions we must turn again to the responses of individuals to changing material and social environments and to the influence of leaders, inventors, and reformers. Such attempts as have been made to explain social movements in group terms have been purely on the descriptive plane. We may cite as an example Spencer's theory of a progressive, diversifying evolution of the social organism. Such metaphors are descriptive rather than revealing. They express; but they do not explain. They are soon passed by in the serious work of seeking causes.

The views which we have thus far examined are examples of what I have chosen to call the "group fallacy." This fallacy may be defined as *the error of substituting the group as a whole as a principle of explanation in place of the individuals in the group.* The word "group" is here used in the widest sense. Two forms of the fallacy may be distinguished. The first attempts its explanation in terms of psychology, assuming that it is possible to have a "group psychology" as distinct from the psychology of individuals. The second renounces psychology and relies upon

some other form of group process for treatment of cause and effect. Both forms abolish the individual; and, it may be added, both therefore abolish the services of psychology as a possible helpmate of sociology.

Turning from explicit collective mind theories the task now lies before us of pointing out a less easily recognized but widely diffused influence of the fallacy under consideration. I shall present three examples from the more dynamic phases of sociological theory, namely social conflict and social change. These illustrations deal respectively with the psychoanalytic interpretation of group conflicts, the mechanism of revolutions, and the cultural approach to social causation.

1. *The Group Fallacy in Social Conflict.*—One of the most interesting varieties of the group fallacy is that which translates mental conflict within the individual into terms of dissociation within a hypothetical social mind. Although a number of writers have dealt with this pathological metaphor, its most elaborate development appears in a posthumous work of the late Dr. W. H. R. Rivers. The following points of fundamental resemblance are observed by him between the neurotic person and the abnormal social order. First, the cause of the disorder in each case lies deeper than the outer manifestations or symptoms. Social diagnosis, like the diagnosis of the psychoanalyst, must penetrate into the hidden forces of life. The prognosis, since the derangement is complex, is also uncertain in both cases. The repression of one portion of society by another is said to be closely analogous to repression and dissociation in the individual. In both cases the repressed element remains and causes trouble when the tension becomes too great. Rivers describes two forms of dissociative process. The first is unwitting: the individual merely turns his back upon that which is unpleasant. Just as we tend to let disagreeable experiences pass out of our attention, so one portion of the group (the upper class) preserves its peace of mind by ignoring the existence of poverty, disease, and kindred evils in the other portion. So far the metaphor is obvious. But if the "social mind" in which such dissociation takes place were to be taken *literally* there would result a ridiculous confusion. Shall we say for example that the upper classes who do the suppressing are conscious, while the lower classes, since they form the material which is banished from the social mind, are therefore unconscious.

Rivers' second type of dissociation is one in which the individual deliberately and wittingly forces painful experiences from his field of consciousness. The group analogy is that the more

fortunate and powerful class of society "deliberately represses outward manifestations of the discontent [among the lower class] which social wrongs arouse." Freud himself invites confusion in this field by applying to the individual a term borrowed from social usage, namely, censorship. And at this point Rivers sounds a note of caution against literal interpretation which he himself does not heed. The persistence of the repressed element, he says, is common to both the neurotic individual and the abnormal group. Tensions are thus created breaking forth as hysterical behavior in the individual and catastrophic change in the social organism. Another type of outlet in the individual is furnished by the symbolism of dreams, which are elsewhere shown by Rivers to be analogous to the symbolism employed by the repressed faction of the social order. Thus a primitive tribe subjugated by a more powerful people preserved their religious ceremonies, but gave them a disguised character so as to conceal from the conquerors their true meaning. Hanging a hated person in effigy is another example of the social use of symbolism to release feeling without incurring punishment. The similarity of such mechanisms to the individual dream process is not to be questioned. We have no justification however for alleging dissociation and symbolism to be mechanisms of an "over-individual", or a "social mind". We have here a collection of individual inhibitions. A mental conflict exists between struggle responses against the oppressors on the one hand, and avoidance of punishment on the other. It is really a struggle between anger and fear. But this conflict and its release through symbolism lie, so far as the mechanism of explanation is concerned, wholly *within the individual*. To expand these mechanisms to the proportions of dissociation within a social mind is to destroy their significance.

Parenthetically, we are reminded of a contemporary instance of social conflict and evasion to which the collective viewpoint might be amusingly applied. There is said to be an unwritten law of censorship adhered to by managers of low class theatricals. It is this: that any stage joke, no matter how salacious its meaning, may be allowed to pass if it has also a *different* meaning intelligible to those who are too pure minded to comprehend the other. This arrangement is indeed convenient, for it permits the clergyman and the roué to sit side by side in the front row, each enjoying the performance from his own angle, while the tranquillity of the social mind remains serenely undisturbed!

That the pathological form of the group fallacy leads in precisely the wrong direction is evident upon closer analysis of the

relation between social conflict and mental conflict. A significant fact taught us through psychoanalysis is that one horn of the dilemma present in mental conflict is usually social in character. It consists of a system of socialized habits inculcated in the individual through stimulation by others, and striving in opposition to the unmodified egoistic drives. We deny ourselves immediate cravings because to satisfy them would infringe upon the needs and desires of others. Were it not for this denial, an overt or actual conflict would result between ourselves and other members of society. To avoid such social conflict the socialized reactions inhibit the unsocialized, and between them engender in the individual a *mental conflict.* Sometimes it is fear of the social environment rather than socialized habits which represents the social force in the conflict. Thus in Rivers' example of veiled ceremonials the lower class, not daring to risk overt social combat with their masters, develop in themselves a mental conflict between hate and fear which finds its release in some disguised manner. On the other hand, when the members of the upper class shut out of their consciousness the miseries of the lower, this behavior holds sway only in the absence of overt conflict. When the masses rise in revolt the scene of the conflict is at once shifted from within the mind of the aristocrat to the field of outward combat between groups. At every turn therefore social and mental conflict are inversely related in their occurrence. The more the conflict lies within the individual, the less it lies within the group, and *vice versa.* Instead therefore of using the mechanism of individual neurosis to explain conflict in terms of the group as a whole, we must conclude that that mechanism is precisely the one which *cannot* be used in that manner. Mental conflict is surely an important concept for understanding social causation; but the interpretation must always be through a collectivity of individual conflicts, and never as a phenomenon of the group as such.

2. *The Group Fallacy in the Theory of Revolution.*—I wish now to call your attention to a theory which represents more nearly than the one just discussed a type of the group fallacy common in sociological writing. This is the formula for revolutions developed by Professor Ellwood.[8] At the outset, however, let me state that Professor Ellwood has always been a staunch opponent of the group fallacy, and has done no little service for the recognition of the individual in social science. Even in the

[8] *An Introduction to Social Psychology,* pp. 170–174; see also an article in the *American Journal of Sociology* for July, 1905.

theory which I cite there are portions indicating clearly that the individual has not been overlooked.

With these provisions in mind, let me attempt to state Professor Ellwood's view. The basis of social revolutions, according to this theory is the rise of immobility of the institutions of society. Through short-sightedness or selfish interest the persons in power in these institutions block the normal processes of social change. Governments become despotic and exert too rigid a censorship. Religion and education likewise may become ultra-conservative. Reactionary and intolerant public sentiment may foster an immobility of the social order. Sooner or later, as the conditions of life change, the forces opposing these inflexible institutions accumulate until the old habits are overwhelmed. To quote the author:

> The breakdown of the old habit [in another place the term "social habit" is used] may be sudden, and the society, being unused to the process of readjustment and perhaps largely lacking in social machinery therefor, is unable for a greater or less length of time to reconstruct its habits and institutions. There ensues . . . a period of confusion . . . in which competing . . . classes strive for the mastery. If the breakdown . . . concerns habits and institutions which affect the system of social control, we have the disorders which essentially characterize a social revolution.

The conception offered above is drawn essentially in terms of the group as a whole. The social order becomes rigid and inelastic until demolished by convulsive social change. The dynamics involved are purely in terms of needed change, resistance to change, and final overthrow leading to temporary chaos,—all these as phenomena of the group itself. So far as quoted above we find no attempt to portray the causes *underlying* this struggle for change, such, for example, as the blocking of instinctive or prepotent responses involved in the economic and family life of the members of society. These of course are phenomena of the individual. The group-wide aspect of social inelasticity, though descriptively true, is not the causal factor. Not lack of change itself, but thwarting of individual responses, produces struggle. There have, in fact, been revolutions precipitated by changes in institutions, rather than by immobility. According to Martin revolution is not a sign of the unyielding character of social controls, but of their very weakening, a condition which gives the restless proletarian a chance to assert himself. Social inelasticity is therefore a descriptive concept; it does not penetrate to the level of explanation.

A further trace of the group fallacy lurks in the phrase 'social habits'. A sudden change in the government destroys the habits of society and brings confusion, until habits of response toward the new régime are learned. Strictly speaking there are, of course, no 'social habits'; but only a collection of habits of individuals.[7] Shall we then say that post-revolutionary disorder is due to lack of habituation of the individuals to the new type of government? Such lack of habituation no doubt exists (again we have a descriptive truth); but the *cause* of the confusion lies rather in the unrestrained following by individuals of whatever factions serve their own interests, and in the new oppressions and revolts caused by the temporary accession of a tyrannous dictatorship. Again causation is discovered in terms of *the individual.* A real danger lurks in the prefixing of the term social, not merely to the word habit, but to any term denoting a psychological process.

In fairness to Professor Ellwood let me now quote a portion of his account which shows that he was by no means wholly insensible to the basic individual factors, and in which such factors are recognized although the language is not wholly free from the confusion just described. His account continues:

> [The party of revolt] is composed in general of those individuals whom the changed conditions of social life have most affected, in other words, of those individuals on whom the old social habits set least easily, *and whose interest therefore lies in another adjustment.* (Italics by the present writer.)

And, again, in a footnote:

> The motivation (cause) of revolt in large masses of men is always lack of adaptation.

The criticism which I have ventured is therefore largely a question of emphasis. No fault can be found with such writing as an interesting, and even valuable, piece of description. My only complaint is that it tends (unconsciously to the writer) to usurp the prerogative of explanation. As such it leads us away from the discovery of true causation which lies, not in groups, but in persons. Much writing, I fear, both in sociology and social psychology, partakes of this error in method.

3. The Group Fallacy in the Theory of the Super-Organic.— Turning now from these mental forms of the group fallacy, we may examine one which renounces psychological explanation.

[7] It must not be overlooked that there are "socialized" (or socially modified) habits of individuals. But that is not the meaning of "social habits" as used in the present context.

This is the super-organic hypothesis developed principally by Professor Kroeber.[8] This theory is concerned with the social as such; that is, with the super-organic. A study of individuals gives us a knowledge only of individuals; it can never reveal to us the reality of organized society in itself. The data of the super-organic consist of culture in the broadest sense, a body of "super-organic products" "carried along from individual to individual and from group to group independent of the nature of these individuals and groups." Professor Kroeber insists that we must study the laws of development and change in these data alone. He affirms that both analysis (description) and determination of process (explanation) are possible wholly within the plane of the super-organic. Culture, in other words, is explicable in terms of itself. It is true that he suggests a psychology for the study of super-organic processes. He demands, however, "not an individual or 'psychic' psychology, but a social or 'super-psychic' psychology, in short, sociology" (as he conceives it).

From the standpoint of the psychologist a psychology such as that just specified has no existence. I do not believe it ever will exist. For psychology is a study of the individual; to extend its principles to larger units is, as we have seen, to confuse their meaning. To extend them to entities which are not even organic is to make them wholly unintelligible. We do not consider a reasoned argument to be identical with the thinking behavior which produced it. It is the product of a psychological process, not the process itself. In the same way culture, being essentially recorded thought, is a product, not a process. Whatever the terminology employed, Professor Kroeber has effectually turned his back upon psychology as aid in sociological explanation.

The freedom of the super-organic from dependence upon organic and individual sciences Professor Kroeber bases upon a classification of sciences into four planes or levels. The data of these sciences are, respectively, the inorganic, the province of physics and chemistry; the vital organic, represented by physiology; the mental organic, constituting the field of psychology; and the super-organic, which are to be treated by sociology. The biologist is said to accept life and inquire into its forms and processes as such. Organic life may, it is true, be reduced to the elementary basis of physics and chemistry. But that is not the main task of the biologist; since, if it were, biology would not

[8] "The Possibility of a Social Psychology." *Amer. Journ. of Sociol.*, 1913, Vol. 23, 633.

differ from physics or chemistry. Similarly, psychology should accept the mental as such and analyze the processes within this field, ignoring the physiological elements to which mental phenomena are reducible. Finally, sociology treats of the organized products of mental life, seeking in these alone its material of analysis and explanatory process.

As a criticism of this argument I shall endeavor to show that the separation of sciences into these distinct strata is apparent rather than real. The sciences really overlap one another, and possess certain fields in common between adjacent higher and lower planes. This relationship may be stated precisely as follows: The phenomena studied by any science are approachable from two different viewpoints. The first is that of description, the second is explanation. A complete program for any science embodies both these forms of approach. Now the essential fact is that in the hierarchy of sciences the field of description of one science becomes the field of explanation for the science immediately above it. Not all of the descriptive material of the lower science is used by the higher; but only that which is relevant to the explanation of the data studied by the higher science. Let us illustrate by tracing through this hierarchy a single example of importance in the psychological level, namely the reflex arc concept.

First, the physiologist notes that when a stimulus, such as a pin prick, is applied to a sensory nerve ending a certain muscle contraction follows. He notes also certain properties of this event, such as latent time, refractory phase, and inhibition of other reflexes by this one. These are descriptive aspects of that physiological unit called the reflex arc. By the aid of the microscope he is also able to describe such minute features as the synapse. But the physiologist must not be content with mere description; he must explain. In order to do this he must borrow certain principles from the lower sciences, physics and chemistry. Thus to account for neural transmission and the action of the synapse he employs the laws of electro-chemical change, polarization and combustion. The existence of an intermediate science, such as organic chemistry, proves how closely the organic is dependent upon the inorganic for its causal principles. Description is thus carried in physiological terms, explanation in physico-chemical terms. But we call this science *physiology*.

The psychologist in turn is attracted by the field of human behavior. He observes the higher integrations of response, such as emotions, habits, and thought, their speed of operation, and ability to inhibit or reinforce one another. He is interested not

so much in the reflex as a detached physiological unit as he is in what response (involving usually a pattern of reflexes) is linked up through synaptic functions with a particular stimulus. The realm of phenomena described by the psychologist thus transcends in scope and complexity that of its lower constituent science, physiology. But how about explanation? It will be seen that for principles of causation in the study of behavior we must descend directly to the reflex arc level, and accept as explanatory its conditions and characteristics as described by the physiologist. Instincts and emotions are conceived as reflex patterns, involving more or less innate coördination of synapses. Learning and thought involve selection among reflexes and fixation,—a process explained by change of resistance at the synapse. Nerve transmission, altered resistance, and correlation at the synapse are therefore conceptions which belong in two sciences. For the physiologist these words are descriptive of things which universally occur. To explain them he must descend to principles formulated as descriptive laws in physics and chemistry. For the psychologist these neurological conceptions are explanatory. Since they are of universal occurrence he leaves their deeper explanation to the physiologist, and applies them directly as explanations of the higher phenomena which psychology describes.[9]

Turning now to the sociologist, we find that the data which he describes reach the highest point of breadth and complexity. They embrace collections of individuals in organized societies, the products of such organizations, and the changes which they undergo. This is indeed a vast field for descriptive analysis. Yet for explanation sociology is in its turn dependent upon the descriptive formulæ of the science just below it, namely psychology. Just as psychology has to seek its causation within the

[9] At this point some reference should be made to the various schools of present day psychology. The argument as presented above is from the viewpoint of the behavioristic movement. The members of the introspective school, who analyze the pattern of consciousness accompanying behavior, admit freely that their approach is purely descriptive, and that all explanation of conscious processes must be in physiological terms. Upon this point they are therefore in perfect accord with the behaviorists. A third school, that of modern functionalism, or purposive psychology, are dissenters from the reflex arc hypothesis. They explain psychological phenomena in terms of a distinctly mental or psychic principle imposed upon the organic mechanism as if from without. Those who uphold this view would probably find it easy to believe in a group mind as an entity distinct from the organism. Perhaps Professor Kroeber has been influenced by this older animistic notion of psychology in developing his account of a super-organic consisting purely of the social as such, and independent of the individual. Believers in the purposive view might also project it downward and consider that a new causal entity enters the hierarchy with organic life. This is the "vitalist" conception in biology.

units (reflex arcs) of which its material, individual behavior, is composed; so sociology must find its explanatory principles in the units (individuals) of which society is composed. The formulations of individual behavior which psychology explains at a deeper level sociology accepts and uses as tools for explanation. Thus social continuity can be understood only through the concept of learning; social control demands the knowledge of instinctive mechanisms through which government and other institutions coerce individual behavior; while progress and cultural change rest largely upon invention, which is in turn the thought process of individuals.

To recapitulate: the sociologist describes social or collective phenomena and explains them in terms of individual behavior; the psychologist describes behavior and explains it in terms of reflex mechanisms; the physiologist describes the reflex mechanism and explains it in terms of physical and chemical changes.

Whereas Professor Kroeber represents description and explanation upon the same plane in the hierarchy of sciences, the argument just advanced would prove that the explanatory portion of each science is derived from the descriptive portion of the science just beneath it. Overlapping, rather than separation, of the planes of the sciences seems therefore to be the rule. A sociology as a science of pure super-organics aims to step entirely out of the hierarchy of scientific method. It does not overlap, but is pushed up, detached from its moorings, and cut off from its explanatory support in psychology. Consequently a purely hypothetical set of social dynamics is projected by Professor Kroeber as awaiting future discovery, any true understanding of which has thus far been revealed neither in theory nor in practice. If the foregoing analysis is sound, the theory of super-organic causation fails by the very standard upon which its claim for existence was based.

Anthropologists may perhaps take exception to the remark that no causal principles can be discovered in the purely social order, and may refer to the laws of cultural dynamics, recently established by ethnology. In fairness to them this claim must be examined. It is true that laws of culture growth and change have been worked out. These are well summarized by Professor Ogburn under such topics as curve of cumulative growth, diversification, diffusion, independent discovery, cultural inertia, survivals and cultural lag.[10] It is true also that these concepts are

[10] *Social change.*

stated wholly in terms of culture itself. It is my contention, however, that they are fundamentally descriptive rather than explanatory. The dynamics which they involve cannot be truly understood without recourse to the psychology of the individual. Thus Professor Ogburn freely employs psychological factors in explaining the mechanism of cultural inertia and cultural lag.

A rich field, but little explored, lies ahead for the elucidation of cultural development in psychological terms. Though ethnologists may well lose patience with the poverty of attempts thus far made, the fact that there are great possibilities still remains. A few illustrations may here be in place.

First, as to the origin and progress of culture. Invention, a term lightly used by ethnologists, must be explained in psychological rather than cultural terms. The need or prepotent drive behind inventive behavior exists only in individuals. In manner of procedure invention is but a variation of trial and error learning, shortened by the implicit random movements of thinking. The culture base short-cuts individual inventive behavior; but it is absurd to say that it can take the place of such behavior. We find learning of this character extending through vast reaches of time from the earliest eolithic culture down to the modern machine shop.

As another example we may cite the universal cultural pattern described by Dr. Wissler. The origin of this universal pattern is inscrutable until we conceive its various parts as means for the adaptation of the prepotent, or instinctive, needs of man. Thus the innate responses of struggle and defense are behind the development of such culture products as government and warfare. The hunger drive gives rise to property, scientific knowledge, and material culture in tools, though these of course serve other needs as well. Family and social systems are evolved largely as satisfactions of sexual interests. The speech complex, through the control it gives over others, serves all the prepotent needs.

A third phase of culture explanation lies in the problem of continuity. In its most essential nature culture is not a group of super-organic products. It is distinctly organic and lies within the individual. Social causation lies not in a tool but in the socially inculcated habits of constructing and using the tool. This theme has been immortalized in Mark Twain's story of the Connecticut Yankee. Culture upon a descriptive plane may be studied at large. This is the task of the anthropologist. In an explanatory sense, however, it must be sought within the individual.

Explanation of this sort is a part of the program of the sociologist. The theory of the super-organic is a well meant but futile attempt to transplant the historical and descriptive method of ethnology into the field of social causation.

At every turn we are thus led back to the behavior of the individual as the source of explanation of social facts. Does this prove that the social as such is to be banished from consideration? By no means. The fact that we decline to use the group, its products, or its changes as principles of explanation, does not lessen our interest in these phenomena. They are, after all, the chief objective of the sociologist. We have not, as Professor Kroeber charges, denied reality to the social order because we do not explain that order in terms of itself. When we turn to the individual for causation we but follow the rule of the other sciences in explaining the complex in terms of the simple, the whole in terms of its parts.

I have previously referred to the fact that a science does not employ all the descriptive elements of the science just below it for its own purposes of explanation. Neuro-muscular physiology for example suited the phenomena of psychology better than the physiology of circulation or digestion. In the same way sociology may choose a certain phase of psychology for its explanatory groundwork. This phase is that part of the behavior of the individual which stimulates other individuals or is a response to such stimulation *from* others; in other words, the social behavior of the individual. Such indeed would be my definition of social psychology; and I would suggest that its thorough and scientific formulation would provide sociologists with a set of principles of the highest value for explaining the phenomena of a purely social order. The work of sociology, therefore, would be to describe social aggregates and social change in terms of the group, but to explain these phenomena in terms of the social psychology of the individual.

DISCUSSION OF PROFESSOR ALLPORT'S PAPER*

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IN discussing Professor Allport's paper I want to simplify my task by drawing a few distinctions. (1) It is unjustifiable to identify the organic or organismic theories of society with the notion of a social psyche. Neither Bagehot nor Hobbes who adhered to the organic theory, believed in a social super-soul, while Herbert Spencer, perhaps the leading exponent of the organic theory, never used the concept of a social psyche; in fact, all of his causal interpretations work with the individual as the ultimate creative psychic unit. (2) A discussion of the theory of a social psyche at this time is strictly speaking an anachronism. Two generations ago men like Steinthal and Lazarus held this theory. They were violently attacked by Wundt, who is himself at times accused of entertaining the conception he was combating. While this is not the place to pursue the subject, I believe this accusation to be unmerited and based on a misunderstanding of Wundt's meaning.

However this may be, at the present time no sociologist or social psychologist, within my knowledge, entertains the theory of a social psyche except in a purely functional sense. Society acts *as if* it had a psyche, but as a matter of fact, all psychic processes take place in individual minds—where else could they take place?

Apart from this, Professor Allport's paper contains the following two assertions: (1) All causes in history are lodged in individuals; only individuals originate things; and, (2) while it is possible to *describe* social phenomena in purely social terms, any attempt to *explain* social phenomena necessarily requires a psychological technique. Similarly, psychological phenomena can only be explained in physiological or neural terms and biological ones in physico-chemical terms.

I do not think that it is either theoretically justifiable or methodologically serviceable to regard the individual as the only cause of historic change. It is true that every element of culture, whether material or otherwise, at some time or other found its beginning in an idea, originated in an individual mind. Therefore, if only we had the knowledge we could trace all elements of culture back to such psychological beginnings in the minds of individuals. On the other hand, if what we are interested in are the changes

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in culture or in individuals at any given time and place, social and cultural factors at once emerge as having causal significance. A great individual like Napoleon or Lenin or Homer may be treated as an historic cause or a complex of historic causes in so far as he has originated a legal code or won battles, or written a great epic or conceived and carried out a social revolution. But such an individual himself is of course the product of his time, that is, his education and social setting. Whatever his inborn abilities may be, the specific content of his mind is contributed by the existing culture. He is therefore caused by it. Similarly, one cultural factor, while of course working through psychological channels, will causally affect or transform other cultural factors.

It is therefore merely a question of drawing a line through the historic process at the point on which our interest is centered. If what we are interested in is the individual as a causal factor in history, then we grant the individual, however produced, and he henceforth becomes a source of cultural transformation. If, on the other hand, we are bent upon exploring the possibilities of cultural or social causation, then we postulate these factors as given at any particular time and place and may utilize them as units which themselves cause further transformations in the cultural process. As contrasted with the absolutistic views of history which explain all happenings either through the individual or through the group and then follow up these explanations as far back as possible in search of "first causes", the view of history here indicated may be designated as relativistic.

As to the distinction between description and explanation, as drawn by Professor Allport, I cannot regard it as justifiable. Modern science conceives of explanation as conceptualized description. Also, it tends to substitute the question *how?* for the question *what?* When Carl Pearson tells us that matter is non-matter in motion, this revelation impresses one as somewhat shocking if what one purports to inquire is *what* matter *is*. But if one's interest is directed towards *how* matter *behaves* or towards the behavior of "something" which might account for the known properties of matter, then Pearson's statement seems no longer confusing.

If so much is granted, it still remains true that two ways of describing or explaining phenomena are always open: either social facts are described or explained sociologically, psychological ones psychologically, biological ones biologically and physico-chemical ones physico-chemically, or, social facts are described or explained psychologically, psychological ones biologically, biological ones

physico-chemically and physico-chemical ones of necessity still physico-chemically, if not in terms of pure conceptional abstraction. Now, both of these modes of approach seem theoretically justifiable and have certain advantages as well as defects.

If a fact in one level is explained in unit terms of the same level, the advantage of the procedure lies in the fact that the autonomy of the level is preserved and the mystery (or at least puzzle) of the transformation of its terms into those of another level avoided. Again, this mode of procedure preserves a conceptual diversity in the universe. This is hailed by some as desirable and rejected by others as reprehensible.

If, on the other hand, a fact in one level is explained by unit factors from another level, this leads to an ultimate conceptual unification of the universe, to a monistic world-view. This also is welcomed by some and abhorred by others. Again, this mode of procedure has the disadvantage or what to some at least seems such, of not only explaining but explaining away. Thus, when a social fact is explained in purely psychological unit terms, there is no more social fact left, and when a psychological one is explained in biological unit terms, there is no psychological fact left, and when a biological one is explained in physico-chemical unit terms, there is no biological fact left.

Differences of taste apart, it seems fairly obvious that both methods of procedure are theoretically justifiable and are likely to bring in the future as they have brought in the past ever richer insight into the nature of phenomena and of our thinking about them.

PREVALENT MISUNDERSTANDING CONCERNING UNCONSCIOUS MIND*

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MUCH popularity has been gained by the notion that one can be affected by emotion unconsciously. The conception is part of a doctrine highly prevalent under various guises. The terms subconsciousness, unconsciousness, foreconsciousness, subliminal consciousness are used to describe varying aspects of awareness. The whole doctrine seems to me a misconception, not only of the import of consciousness, which I shall not discuss, but of the rôle of the forgotten. It has been assumed that forgotten experiences of which the patient is quite unconscious, modify behavior just as if they were present "in the mind" at the time. It is not objectionable that this theory is largely based upon the exploration of the minds of neurotics; for the mental processes of the average person are postulated on grounds quite similar, as in the mechanism of their thinking or feeling there is no essential difference between the individuals called normal and those called neurotic.

Now, while it is true that the ground work of a person's present motives is usually unknown to him without exploration, yet, this is no ground for the assumption that the initial determinants of his behavior are pushed out of sight quasi-intentionally. Even when they are not unpleasant, their disappearance from memory is no less complete, and we have no more warrant for asserting that they are acting upon us "in the unconscious" because they are unpleasant, than we have if we were to maintain that a long forgotten axiom which had led to conclusions is still continuing to act upon us more potently because submerged. What really happens in this latter case, which is not disputed, is that a series of facts, long forgotten, and ceasing to act in themselves have led to a generalization which has been a motivating force in our thinking, feeling and doing. Several generalizations of this kind may be utilized for a further conclusion and therefore pass into abeyance and be forgotten.

An interesting example of this is presented in the year 1922, by the resuscitation of the long dead antievolutionary propaganda. Many ardent students of this controversy several decades ago,

* Read before the American Psychopathological Association, June, 1923, at Boston.

although now strongly motivated by evolutionary doctrine find themselves incapable of restating the groundwork of their belief because many of the numerous facts and inductions upon which it depends are forgotten. Would it be right to say that these facts are lurking in the unconscious, actuating their beliefs? No one will be found to maintain this except in the sense that the person who has forgotten these facts is unconscious of them, and that it is ultimately because of having known these facts that he thinks as he does. But even this would not follow; for even now there are many believers in the doctrine of evolution who have never made the inductions, and are ignorant of many of the basic facts of the doctrine. Ignorance of the ground work of their beliefs becomes the rule in teaching of ancient date, such as those of the older religions, Christianity, Mohammedanism, Copernican cosmogony, etc. One of the reasons for the vitality of the Christian Science religion is its newness, as it compelled its devotees to have knowledge of its groundwork.

Objection may be made that the foregoing examples of forgetting differ from psychological forgetting in the lack of emotional significance. The objection is invalid, however, because hundreds of people reach evolutionary beliefs only through a struggle fraught with distressing emotions. In religious conversions too, the emotional factor is intense, and yet how few converts can present us with even a plausible induction from facts to justify their belief.

It is true that forgotten facts may be resuscitated far more successfully than one thinks, and that their resuscitation need not be dependent upon the emotional significance at all. For instance to answer certain questions required by the State Medical Board Examination compelled me to recall certain facts in chemistry of the forgetting of which I was quite confident, as some had been out of my mind for eighteen years.

In the above case the recall was compelled by intense concentration upon a definite matter of thought. The most common method of recalling submerged memories is, of course, by association. An analogy might be drawn by imagining a series of compartments closed by metal lids, each capable of vibrating to certain sounds, or other undulant stimuli. When its particular note is sounded with sufficient intensity the vibration of the lid pushes aside the catch which holds it, and the fluid flows from the receptacle. Interference by concomitant waves of the appropriate vibrations will impede their usual effect. That physical state is

comparable to the difficulty of directing thought when stimulated by distractions. All philosophers have known that the desert favors meditation, which only means concentration of thought uninterrupted.

Hence, if a person's thoughts are directed towards a particular inquiry, very many matters which he does not habitually notice arise in memory. Morton Prince in his interesting relation of his own methods of composing has well illustrated this ("The Unconscious"). Matters not habitually brought to attention have little affected his thinking hitherto, but now when resuscitated and apposed they may form the material for a new generalization. In this way what we call imagination brings new discoveries; these are merely syntheses of former experiences. Thus arise further inductions, in a way new to the individual, and sometimes to humanity. This concentration may be deliberate; it is greatly developed by training: mathematics, inductive science, the philosophies especially develop it; but it is stimulated by all human activities where intelligence is required, and thinkers for their own advantage in politics and business are no exception. There are persons who channel their minds more readily in talking; others do so better in writing. The state of the feeling is responsible in many of these instances, as the company of others compels an effort of concentration for which there is less motivation at the desk alone. It is, however, largely a matter of habit.

By relieving the mind of incoming stimuli, and the need of attention to daily tasks, an illness may stimulate recollection, and especially as the alteration of the physical state may, by changing the feeling tone, arouse association with former feelings, which when once aroused lead to a train of reverie which brings back a long neglected past. Such is the instance related by an observant and penetrating mind, untainted by psychological theory, among the recollections of his boyhood by W. H. Hudson:

"When a person endeavors to recall his early life he finds that it is not possible, there is nothing but isolated spots or patches while it seems that the rest has been permanently blotted out; whereas in some rare states of mind it is revealed to him as by a miracle that nothing is ever blotted out. It was through falling into such a state of clear and continued vision of the past that I was forced to write this account of my early years.

"During a severe illness I fell into recollections of my childhood. It was as if the cloud shadows and haze had passed away and the entire wide prospect beneath me made clearly visible. I set myself to try to save this vision from the oblivion which would

presently cover it again. I never ceased wondering at my mental state; I thought of it when quickly tired, my trembling fingers dropped the pencil, or when I woke from uneasy sleep to find the vision still before me, to resume my childish rambles and adventures of long ago."

We are not conscious, as such, of the overtones which make difference of timbre in musical instruments and yet they furnish differences of sensation which produce different states of consciousness which are by no means the fruit of "the unconscious mind." This obvious enough statement is made as an approach to one often made as a plea for the unconscious mind. Its proponents claim that the state of the viscera, part of an emotional reaction, though unperceived as such by the subject, yet affects his behavior by means of his unconscious. This is a quite unnecessary hypothesis, as the cases are parallel; for the patient is just as much conscious of the modification of feelings emanating from his viscera as he is of the modification of sensation evoked by differences of timbre; although in neither case can he describe the sensory elements which modify his state. It is not because states of the body require an esoteric registration by an unconscious mind, that they modify behavior, but because they directly influence the basis of conscious thought. Whether they are conscious or not is purely a matter of directing the attention towards them. It is surely idle to pretend that feelings unattended to are part of an unconscious mind even when they are influencing behavior, as, for example, when an irascibility is provoked by a painful tooth which one has for the moment forgotten in concentration on a business affair in which one's efficiency suffers in consequence. That feeling tones are not unconscious affairs is shown by the frequency with which they are spoken of as when one says "I feel sad, gay, cross, miserable, grieved, depressed."

The same is true of motivation. That persons are often quite unaware of their real motives is not because these act through a separate unconscious mind, but because the subjects are without aid unable, or unwilling, to bring their attention strongly to bear upon them. It is a mental laziness comparable with that of many overindulged young women who will not apply themselves to mathematics or mechanics and permit a man to perform for them a simple adjustment or calculation of which they erroneously believe themselves incapable. The dishonest mind dislikes introspection, preferring to remain unaware of what it dimly feels would be unpleasant. That is why so many motives are regarded by psychoanalysts as unconscious. A motivation may be quite

effective without being bared to the light. That everything which is not stated in the form of syllogisms is an appurtenance of a different species of mind to be known as unconscious appears to be the contention of many.

It is a misstatement of fact to declare that our motives are retained in the unconscious. They are dependent upon experience and memory. They are ways of reacting to circumstance habitual to each. Now a memory is not comparable, as so commonly supposed, to be a package of goods stored in a pigeon hole to be brought out when required. It is a sequence of stimuli each provoked by another and eventuating in an end which is a movement, even when that movement is confined within oneself to modifications of blood vessels, viscera and muscle tensions. Facilitation is the name given to the property of the nervous tissues which permit training in ordered acts.

Ordered thinking is not different from ordered movement in its basis. Because I cannot recall a certain word is not because it slumbers in the unconscious, but because the mechanism which creates that word has not received adequate stimulus. The sensation that it is hovering in the offing should not be compared to that of swine hunting for truffles. It is a consciousness of the sensations of the processes which precede their completion in the emergence of the word sought. An illustration will make this clear:

In a recent after dinner speech I could not recall the word gourmond. What came to my mind was the word epicure, which I knew was not what I sought; but besides this was the consciousness of two words of similar significance with a minor difference, and of a sense to which the word epicure was sometimes erroneously applied; but neither word came to mind when wanted though I knew that one would necessarily bring the other. Later in the speech, as I expected, I recalled the elusive word.

Motivation may be dependent upon a feeling for appropriateness. This itself is dependent upon experience in the avoidance of the unpleasant and the turning towards the agreeable. It may be expressed as the outcropping of a mental set whenever the surroundings stimulate it. It is strictly comparable to what is called in animal behavior an action pattern.

Although people are often quite unconscious of their own mental sets or action patterns, this is not because they are manifestations of unconscious mind, but because their attention has not been directed towards analyzing them.

This reasoning applies equally to automatic activities, for

example, in interpreting music on the piano, the player is not actively conscious of the position of each finger and the striking of each individual note in the minute particular way he attends to during technical practice.

This is not because it has been relegated to an unconscious mind, but because when the mind is set that way the sight of a certain succession of notes at an indicated tempo and sonority induces a succession of movements of corresponding force and velocity. That, though automatic, there is a conscious operation is shown by the fact that it can be immediately arrested or can be modified as to speed and intensity, nuance or variation. That at the same time the subject can sing or even talk is merely a feat of division of attention, a commonplace to many operations of human beings. For example a business man while chaffering with another is not only thinking of the trade they are making, but is estimating the personal reaction of his antagonist as well as the consequences of their commerce.

Mere suggestion is often capable of changing the mental attitude of living beings towards situations, so that unpleasant feelings are deprived of their grounds. It is by a complex induction of logical and philosophical bearings that the reconditioning of patients is affected by the doctrines of Christian Science, disregardful of physical states and without reference to psychological mechanisms. No solid reconstruction is thereby effected, and patients reconditioned by this unsound procedure frequently fall into states of anxiety or other distressing emotions.

The complex inductions concerning the rôle of the sexuality portrayed by the followers of Freud are equally capable of melioristic effects. The psychoanalyst erects a man of straw in which he makes the patient believe and which he then destroys. The patient, then persuaded of the disappearance of the bogey, believes himself well so long as he continues to believe; but the foundation being of sand is unstable and he relapses.*

Effort to escape from the unpleasant is a primordial function of living beings. The distressing emotions such as fear, disgust and hate are avoided by all men. As the preceding considerations have shown, this avoidance in the mind need postulate no mystical theory of unconsciousness; for the attempt to avoid by diversion, distraction, self-deception, substitution, is a perfectly straight-

* Regarding many other factors ignored by certain psychoanalysts, see "Some Neglected Psychopathic Factors," read before this Association in 1922 and published in the *Journal of the American Medical Association*, Oct. 1922.

forward way without recourse to artefactual conceptions of the unconscious. The following is a case in point where fear was the motive incriminable, and where although insight into the psychic mechanism on the part of the patient was quite inadequate, yet the sequence of thinking and feeling was readily ascertainable *when the patient was compelled to introspect.* His unwillingness to face should not therefore be translated into incapacity to know.

In a state of abject terror, face congested, eyes bloodshot, trembling violently, unable to leave the hotel to undertake important official business for which he had come to Washington, a man unwillingly permitted me to see him at the instigation of a local physician and a business associate who had accompanied him. An intense fear increasing during several years was more and more incapacitating him for affairs. Medical treatment, rest, travel had been without avail, and he was in despair at the failure of these methods. Apparently he had no inkling of the basis of his dreads; but in reality he dreaded the examination into their sources. When investigation was sedulously pushed it was discovered that he was compelled to refrain from business enterprises because of fear of storms, and especially winds. It was ascertained that this had arisen because of the bursting of a large dam and his struggle to reach home against a panic-stricken crowd. Further exploration revealed the basis of the fear as that of death. This was the factor which demanded therapeutic reconditioning. In order to effect this, the personality of an only child, always spoilt even by his business associates, had to be dealt with until the point was reached where he spontaneously declared, "Perhaps I don't amount to much anyway", and later showed the realization of his needs by stating "I have concluded I will be just what I make myself". The reconditioning idea then might be stated shortly as "Why should I be afraid of losing a life which after all is that of a person nothing like so valuable as I had supposed?" Hence the root of his difficulty was an inadequate insight into the psychic processes concerned. This led to the pejoristic attitude, fear of death; and this interfered with his efficiency by preventing his undertaking the activities necessary in his business. This incapacity led to other fears with regard to success, esteem, economic status; and an acute anxiety produced the clinical picture which was seen at my first visit. In less than a week he was impregnated by the truth regarding himself. This

was melioristic in tendency and therefore permitted him to adjust himself to the conditions of his life without distressing emotions.[1]

The mechanism was ascertained without resort to dream analysis, artificial association experiments, or the abstractions of mind required in the free association method. These expedients are merely indicators of anamnestic incapacity on the part of the examiner, who is often too self-conscious concerning his own social reactions, particularly in sex relation, and therefore prevents the free unfolding of the patient's mind.

A remarkable illustration of this interpretation was recently afforded in the case of a young woman sent me from a neighboring university because of a prolonged inertia which her physician surmised might arise from sexual repressions. I was totally unable to ascertain any such thing from the patient, although I, too, strongly suspected a factor of this kind. The credulous might have concluded therefore that sexual maladjustment had been "repressed into the unconscious".

Much experience prevented this point of view however. I simply attributed my failure to lack of skill; and this interpretation was quickly confirmed by the revelations made by the patient to an exceptionally intelligent nurse. After this, the patient readily admitted the sexual factors which she had been too timid to reveal to me. But even then she remained unwilling to discuss them further. This from a therapeutic point of view, however, was unimportant, as other factors in the case required to be dealt with also. From our point of view the important point is that the so-called repressions were mere reluctances. I strongly believe that a similar more critical estimation of the revelations of patients would leave very little clinical basis for the doctrine of the unconscious so strongly advocated by some psychopathologists.[2]

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[1] See other instances related at length in my recent publication, "*Dreads and Besetting Fears.*" Little Brown and Co., Boston, 1923.

[2] See "Rehabilitation of Young Women," *Virginia Medical Monthly*, 1924; "Situation Psychoses," *Southern Medical Journal*, 1924.

THE RELIGIOUS FACTOR IN MENTAL DISORDER

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IT IS quite apparent that many psychotic patients, especially those in whom rather definite delusions are in evidence, show a variety of bizarre tendencies with a definite religious coloring. These reactions may be manifested by a number of forms, ceremonies, or expressed ideas concerning certain beliefs or faiths. As in the case of all symptoms that are frequently observed, it is of some advantage to investigate their motivation. Before proceeding to discuss some of these productions, it may be of value to examine, briefly, certain adaptations made by all individuals.

In times of stress, whenever obstacles appear, or new difficulties are encountered, the individual is compelled to make a decision. If his judgment proves equal to the occasion, a satisfactory adjustment to his environment is made, and he may continue on his course. If, however, his ability to meet situations is hampered by certain opposing forces, opinions which are conditioned by motives of which he is unaware, his choice of action may give rise to various unpleasant developments. These necessitate further judgment, and one of two pathways is open to him. He may adapt himself in some way to the new situation, or he may allow things to run their own course, himself retreating from the difficulty. In taking this flight from reality, he is obviously compelled to assign and create reasons for his course of action, in order to measure up to the standards of the ego—the latter always tending to justify and sanction its actions. Various devices are at hand which enable him to accomplish this "smoothing-over" process, and these are taken from the vast amount of material accumulated in his storehouse of tradition, education, precepts and philosophy of life. The mechanisms involved in the development of every personality are based upon a complex variety of influences active throughout the individual's whole existence, and determining every phase of his conduct. It is from such a point of view that all modern scientific research is carried out. Many hitherto perplexing problems have been studied in this new light, with the result that some were elucidated, others partially clarified, while a certain group remained unchanged, and are still veiled in mystery. However, although the determinants of many phenomena have not, as yet, even been surmised, it does not follow

that they are absent. Whatever may or may not exist beyond the grasp of human faculties, does not contradict the fact that every individual act of behavior, not only is capable of being explained, but ought eventually be explained on the basis of human reason. This may not be possible at the present time, but if such accomplishment is not conceivable, one may argue that the business of living then appears unreal, uncontrollable, and perhaps unnecessary. The vegetative life of the drug addict would be as laudable as that of the toiler in the fields, and the stupor of the catatonic would then be a justifiable condition for society to encourage and foster. To the student of science, it seems necessary to explain human conduct on human grounds. That some greater force may exert its influence on living matter, either by giving the impetus to life, or by conditioning reactions throughout a whole existence, is an assumption not at all incompatible with the above mentioned ideas, for the biologic conception of living things merely needs to presuppose that human phenomena are genuine in the sense in which this term is commonly used, that they occur in an atmosphere of reality, where "that which is cannot be that which is not". If this view is accepted, it is incumbent upon man to act accordingly, and meet situations by facing them squarely, not by utilizing the defense-technique of the ostrich. It does not seem necessary that a special method of behavior is indicated because of the possibility of some outside force being present. It is with such special behavior that this paper shall deal.

As to the almost universal acceptance of the belief in some form of divine power, there is little doubt. The majority of people subscribe to such faith without question or reservation, basing their convictions upon various grounds, offering as confirmatory evidence of the existence of some power beyond themselves, the very "riddle" of life itself. In other words, only the purest form of speculation in the realm of the metaphysical, could be employed to solve the mystery of vital energy per se. However it is well within the limits of ordinary rational ideation and logic to approach the question of the development and elaboration of this generally accepted primary premise. It is in the modification and transformation of the original principle that factors other than intellect have an important rôle to play. These factors can best be demonstrated by investigating the productions of abnormal individuals. As in the case of other reactions in mental disorders, the same mechanisms are at work as in normal individuals. This of course does not imply that the facts associated with each can be

applied interchangeably to both. However, there is clearly some correlation between the two in certain instances.

It appears that individuals frequently resort to various subtle ways of deceiving themselves, because truth is so often painful, and for this reason it may be of some value to examine the processes at work in developing systematized groups of reactions, patterns of conduct, and special tendencies evolved to satisfy some phase of the individual's existence. It is obvious that the mechanism of self-deception is rarely conscious, at least in its full significance. At times it may be entirely out of the field of awareness; again it may be distorted and repressed into the unconscious. The resulting reactions appear in a variety of forms which include the many systems, cults, "fads", faith cures, rites and ceremonies carried down through the ages, or developed during modern times. The most important of these are well known to almost every one, and no effort will be made to enumerate or describe them at this time. The traditional faith, which many of them have transmitted to their followers, often becomes manifested during attacks of mental trouble, and frequently constitutes the basis of symptoms. This can be illustrated by the large number of delusions colored by these beliefs. The patients may not have had personal association with the views they now voice, but nevertheless, the effect of tradition has impressed them, so that the elements of dogmas and creeds are woven into their present opinions.

The etiological factor at work in the production of each symptom, in many cases, cannot be ascertained, and the reasons for certain symptoms appearing must, of course, be sought for in many personal sources of conflict. However, in those cases in which the religious element is associated with psychotic reactions, the analysis of the symptom frequently reveals some particular reason for the prominence of the religious factor.

That, in certain cases a spiritual faith may serve as a protective agent in maintaining an adjustment for some psychotics, cannot be denied, since there are specific instances wherein the libido trend is absorbed by interest in a certain cult. For this reason there are occasionally beneficial results following some of the so-called "Faith-Cures". But in these cases, although a fairly satisfactory adjustment is sometimes made, it is brought about without the patient's acquiring insight into his condition.

It is difficult to trace the origin of the impulses at work in the celebrated case of Robert Bachman, the so-called "Devil-Chaser" of Northampton County, Pennsylvania, who was committed to

Norristown State Hospital June 5, 1908, after murdering his daughter by strangulation, presuming in this manner to drive out the devils within her. It is noteworthy that during this attack of religious frenzy, Bachman remained seated upon the child for hours with her neck in his grasp until her life was extinguished. Preceding this final act it was a daily routine for him and his wife to engage in ceremonies symbolic of being "swept and garhished". These rites consisted of various contortions, beating of knees, rolling upon the floor and kicking at the furniture. From wherever these ideas arose, in all of these performances there would appear to be at least some similarity between them, and the services of the present day order of "Holy-Rollers". Such behavior does not differ greatly from that observed in hysterical patients. In the latter cases the reactions are termed symptoms, and the mechanism whereby they are produced is generally acknowledged to be that of conversion. It seems evident that Bachman's religious demonstrations were quite probably conversions. Without sufficient data, it would be mere guess work to attempt to determine exactly what repressed emotions were active in this process. However, the very manner in which the act of torture upon his daughter was accomplished, would strongly emphasize the possibility of a sadistic tendency.

Another reported incident of extreme religious zeal, functioning in asocial conduct is the case reported by Schroeder called "Margaret, the Wildisbuch Crucified Saint". This is an account of a woman who showed a precocious intellectual nature, and an early tendency to study religious subjects. At the age of six she was able to read the Bible, and as a child was looked upon as a sort of "holy-maiden" with special powers. As she grew older she attended prayer meetings and religious services. This was accompanied, for a time, by depression of her spirits and an increasing consciousness of her own sinfulness. Schroeder explains these two tendencies on the basis of changes at adolescence, where he states that "a growing consciousness of sinfulness signifies a growing consciousness of sexual desire and its social taboo", while he observes also that depression of spirits is a frequent accompaniment of sexual suppression. Margaret's life was spent in work as a revivalist. Her contact with persons supposedly "possessed" by demons was apparently markedly influential in relieving distressing manifestations, especially such conditions as epileptiform seizures (many of which are now known to be due to sexual suppression). Her religious rites were charac-

terized by violent activities which had to do with beating the breast, smashing down the furniture, etc., in order to drive out evil spirits. Her followers were frequently keyed up to a fury, and, evidently possessing suggestive temperaments, aided her in carrying out her plans which proved later to be somewhat drastic. At the height of religious fervor she commanded one of her disciples to murder her sister with an iron wedge. About this time Margaret's own "spiritual glory" reached its height, as indicated by her flashing eyes, heaving bosom, and quivering body. After repeated wrestling with the devil, beating about with crow bars, the orgie terminated by Margaret's submitting herself to crucifixation, keeping her faith to the last, stating that she felt no pain.

While a detailed study of the history of Margaret's life would reveal numerous reasons for mental conflicts, many of which are stated in Schroeder's article, it seems probable that many of her spiritual maneuvers were symbolic expressions of erotic tension, and not detached from the infantile sado-masochistic component. One cannot fail to perceive also the author's implication that the outward signs of "religious ecstacy" may be identical with the physiologic signs of sexual excitement.

The unconscious factors present in individuals are not always manifested in the same way, but they infrequently employ some form of religious expression at the conscious level. Abraham, in his work on "Dreams and Myths", believes that the theory of wish-fulfillment is applicable to religion as well as to myths. He points out that man originally identified himself with God whom he believed was the great procreator; then, through the process of repression, considered himself subordinated to God as a creator, care-taker and all-loving Father of the universe. He compares this concept of Deity to a wish-phantasy, which has its roots in infancy, where too, a desire for a caretaking father is present. From this point of view, it seems logical to examine another almost universally accepted theory, that of the Doctrine of Immortality. In this theory two factors enter which undoubtedly are active forces in many religious teachings, namely, the hope-for-reward and fear-of-punishment. These two ideas, of course, are based upon the infantile "pleasure-pain" motive, and are most easily demonstrated in certain psychotic patients, who apparently are making a satisfactory adjustment to their surroundings by adopting firmly set religious views. In this connection it appears amusing that one of the patients in the receiving ward preferred

to believe that it was the "Will of the Lord" that he remain secluded in his consecrated room, rather than to submit to the discomforts of certain hydrotherapeutic procedures.

Another illustration of similar trends can be observed in the case of C. L. H., a patient who has been in this institution for the last sixteen years, known to the members of the staff as the figure in white, commonly referred to, around the institution, as the "prophet of God". For many years this patient has been making a quiet, apparently peaceful adjustment to conditions about the hospital, firm in his belief that he is here, not as a patient suffering with mental disorder, but as a "messenger of Christ" who has been placed here to save the souls of men. One hearing his statement for the first time, and not having known about the trio of alleged godly beings recently admitted to the institution, might justly be somewhat perplexed about his identity. The personal history of this man reveals nothing of special importance except that he was considered a delicate child, but had no serious physical illness. He obtained a common school education, and later worked in various factories. At an early age, he became interested in religious matters, and was baptized a Baptist at the age of thirteen. He was always somewhat troubled over religion, and was continually fearful that he was "not right in the sight of God"; at one time stated "I have felt that I could not live as I ought to". He married at the age of 25 but because he was "not well" his wife was untrue to him, and committed adultery with a certain widower who had been his friend. A few days ago the patient stated that his wife had always been unresponsive toward his demonstrations of affection and he now adds that he may have been "somewhat ignorant along these lines". He worried for some time over his wife's infidelity, and one evening lay down from sunset to dawn in order to obtain "spiritual faith". This came to him by morning, and, shortly afterwards, he began to hallucinate visions and voices. Eventually he was admitted here. Since admission he has made a somewhat self-satisfied adjustment to the place, but spends his entire time walking the grounds, making crosses by his path, or at other times studying the Bible. He dresses in a white suit and hat, which he calls symbols of purity, and are emblematical of Bibical passages. To the casual observer this patient's quiet demeanor, quite rational conversation and poise would indicate that he is entirely content, and at peace with everything. However, a few repeated trials at obtaining a somewhat better insight into his personality, show that he is not at peace with the world nor with himself. He is really in conflict.

The first indication that there were ruffles beneath the smooth exterior was shown when he identified a fellow patient as the same man who appeared in a dream several years ago. In the dream the patient saw this man riding upon horseback carrying a cane. A snake 100 feet long appeared, and pursued the man. As he approached the dreamer, he opened his jaws, and the patient now vividly describes what followed. He gazed at the serpent and noted particularly that its muscles were tense and enormous. He then grasped a stone and struck the snake upon the neck. Its head fell limp and with a tremendous shaking of its body, the serpent fell dead. The manifest content of the dream alone seems to indicate a struggle which is not yet solved, and which can be freshly renewed by present incidents. Free association to elements of this dream was rather inadequately carried out because the patient was of the opinion that such spontaneous thoughts were not sacred. However, the relationship between the snake and temptation suggested itself to him, and the struggle, he believed, was to purify himself in the eyes of God. The knowledge that he possessed some feeling of inferiority regarding his sexual powers, combined with the facts obtained from his life-history might suggest an added significance to the dream, with the snake as a phallic symbol. This patient undoubtedly did possess a sense of inferiority for which he has been trying to compensate. The religious trend has been an outlet for this tendency. He believes that he will never die, although he may pass through six hours of torture, when he will continue to live in his own body forever. This illustrates the "hope-for-reward" principle as mentioned above.

It is of interest to note that the patient's tendency toward religious subjects was manifested at a very early age. Likewise his consciousness of sin was correspondingly increasing. Direct questioning into his early sexual life elicited brief statements to the effect that he had practiced onanism somewhat during boyhood, but between the ages of fifteen and sixteen abstained entirely. When he yielded to this impulse again, he sought consolation in prayer, asking for forgiveness. His compensatory tendencies have, up to the present time, carried this man to the point where he believes himself in some way identified with Christ, so that at times his messages to mankind are imparted with this idea in view. This sort of reaction is frequently seen in a number of patients who compensate for inferiorities, and innumerable examples could be given.

A patient who is at the present time in the midst of an active

psychosis of schizophrenic type, shows a number of unique religious delusional trends, most of which, apparently, are the result of rather definite unconscious emotional motivation. This man is a young Filipino, age twenty-six, ex-second class electrician, U. S. N. Family history shows that his mother was tuberculous and alcholic, and died when he was about eighteen years old. His father died when the patient was a small child. There was always a very close attachment to the mother, and this was the cause of considerable jealousy between himself and a step-sister. He was somewhat seclusive, shut-in, "bashful and not like" other children. He gives a history of nocturnal enuresis from early childhood up to the present time. He worked hard as a boy, but had difficulty in adjusting to a position for any length of time. In 1915 he joined the Navy as mess attendant and got along fairly well during his period of enlistment. After his discharge he again had difficulty in retaining a job. His first hallucinations probably occurred in 1904, and, after several years, recurred at definite periods. A delusional system developed apparently coincident with the hallucinatory phenomena, and these ideas are quite well constructed, rather fixed, systematized, bizarre and grandiose, colored with paranoid, erotic and religious trends. In the fall of 1918, while on board a ship at sea, he experienced a vision which he describes as follows: "I felt like my whole body was full of electricity—I was trembling all over, but very happy, my mother's arms appeared before me,—they were surrounded by many angel arms, and her hands beckoned to me to come and love her. I could not see her face or her body, but I knew the hands were those of my mother. A voice said, 'Ask your mother so that you will understand the higher science in the world.' I did not answer—my answer was only symbolized that I must love her; her arms then gradually faded away and the trembling in my body stopped." His ship-mates informed him that this vision indicated that he would be the greatest man in all the world. "The foundation of man is from the 13th to the 16th of May, that is the only time that we are allowed to have sexual intercourse. Our fathers above will forgive us during this time."

As a boy, this patient was always kind-hearted, sympathetic and of an imaginative nature. His greatest object of love all of his life has been his mother. He does not recall anything about his father except that he always considered him "no good" because his mother disliked him very much. Since 1920 he has had a great love for men and believes his affection for the male sex

is the result of an inspiration from heaven. He had but one love affair with a girl and this was apparently of a purely spiritual kind, principally for her deliverance and protection. On a few occasions he was coaxed into a house of prostitution with some ship-mates, where on each occasion, he was forcibly held by the boys until one of the inmates seduced him. He disliked to discuss such things and emphatically denied masturbation.

As a boy he attended services in the Roman Catholic Church but was not especially interested in religious matters until 1920, since which time religion has formed the principal part of all his activities. He believes that various angels send him messages, and that he himself is in some way related divinely to God, with the power to restore the dead to life. He writes voluminously on religious subjects and makes numerous drawings, some of which show considerable merit. On certain occasions he has placed upon paper symbolic expressions of his many conflicts.

Psychotherapy was of no apparent benefit to this patient who remained quite well satisfied with his delusions, and somewhat grandiose. However, analytic procedures revealed that most of his difficulties are the result of a very definite mother fixation and father hatred, a homosexual make-up, and numerous psychobiologic inferiorities. His ideas regarding his spiritual power, divine nature, and ability to raise the dead are compensatory tendencies constructed to overcome these inferiorities.

In conclusion it may be stated that investigation of various religious tendencies in abnormal mental conditions indicates that these reactions are conditioned by repressed emotional states, and unconscious motives, many of which are similar to those active in the production of the various neurotic or psychotic symptoms.

It appears that the different forms and elaborations of religious principles, as they are generally seen in mental disorders, are formulated from remnants of traditional faith which are woven into the patient's productions. Many of the ideas associated with faiths are moulded and guided by hidden motives such as desire to enhance the ego, to fulfill wishes, to avoid pain, procure pleasure, and to compensate for inferiorities, or to satisfy ungratified sexual cravings. The mechanisms used to modify these forces so that they appear in the socially acceptable forms of piety, devoutness, religious fervor or ecstacy are the well-recognized subtle processes of rationalization, compensation, compromise and conversion.

The value of recognizing these facts lies in their practical application in the field of prophylaxis against mental dis-

turbances. Every child passes through more or less similar stages in psychobiologic development. These stages have been carefully described from many points of view by various investigators, so that explanations have been offered, physical, chemical, physiological and psychological for the changes observed. On the psychological side it has been shown that arrest of development or fixations at infantile levels, influence greatly the behavior and whole personality of the individual throughout his life. The severity and force of repressive influences undoubtedly diminish one's opportunity for freeing one's self from these infantile tendencies. It is apparent that in many instances conflicts either originate from, or are exaggerated because of the rigidity of certain repressive forces. The tremendous importance and emphasis placed upon most religious observances indicates the repressive power behind these beliefs. Violations of any of these precepts are usually acknowledged to be punishable by certain divine agencies, all of which are based upon speculation, and by their "mystic" nature are prone to incite fear of the unknown.

In the light of these views, it appears obvious that an unusual amount of caution is necessary in selecting the subjects for religious instruction to be given to children at an early age before the unfolding of their personalities. The rich phantasy-life of the child may be a source of benefit or danger to him, depending upon how it is influenced by the environment. Various observers have demonstrated the importance of differentiating between types of "fairy-tales" and myths, showing that certain ones favor a creative imagination, while others merely act destructively, instilling fear. Instead of having the opportunity of approaching the psycho-physical change of adolescence unimpeded, and with the wise and understanding guidance of the parents and teachers, the average boy and girl are surrounded on all sides by specters of various sorts, which in distorted form, may remain throughout a lifetime ready to pounce upon them lest they violate any fragment of a sacred tradition.

Further investigation into the personal records of normal individuals may lead eventually to more definite conclusions regarding the rôle of early religious training in the development of personality. The frequency with which the religious factor repeatedly appears spontaneously at the time of mental disorder indicates the importance of this repressive force, and should be reason enough to encourage further study in this direction.

SUMMARY

The characteristic religious coloring which, so frequently, is manifested in the delusions of psychotic patients, is conditioned, largely, by unconscious emotional conflicts, many of which would appear to have originated through association of instinctive trends with the inhibitive force of traditional faith.

The specific "religious" behavior of abnormal individuals, involving conversion symptoms, convulsions, criminal assaults, hysterical states, etc., as well as the so-called normal reactions of individuals alleging "religious experiences", manifested by piety, fervor, and ecstacy, is dependent, in part at least, upon such mental mechanisms as rationalization, compensation, conversion, and compromise.

Religious doctrines and faiths constitute a powerful repressive force, active in the mental development of the child.

This fact should not be ignored in considering the question of religious instruction, especially of the type which tends to emphasize dogmatic observance of spiritual obligations. In such cases it is questionable whether the benefit derived from such training might not be effaced by the harmful effect. Fear-inciting mysticism, which is vague to the child-mind, may be very influential in stimulating mental conflict because of its rigid inhibitive force.

The mental reactions of childhood, which are characterized by phantastic thinking, are susceptible to stimuli, arising from abstract theories, which may excite fear of the unknown, initiate feelings of inferiority, or in other ways cause mental conflicts to develop.

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GREGARIOUSNESS CONSIDERED AS A COMMON HABIT

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NO ONE seems to look back upon the rise and fall of various theories of instinct with a great deal of pride. Originally employed to assist in keeping the slave faithful to his master and the subject loyal to his king, the concept has passed through several phases to the present very unsettled condition. We no longer believe that a man is born with an idea of a king nor endowed with a native tendency to support the ruling class in the church, but we still entertain beliefs which are, to say the least, unfortunate. The social sciences seem to have advanced rapidly in spite of the great emphasis on native factors, made popular by a few brilliant writers. The discussion of instinct which is in progress at the present time is demonstrating the possibility of improving "human nature" in a way which hitherto was not considered possible.

Of all the important tendencies which are now said to be native, gregariousness seems to have perhaps the least justification for being called an instinct. A large number of modern writers claim that man is a gregarious animal endowed with a native tendency to seek the company and engage in the activities of others of his kind. In the hands of a few writers the concept has attained a remarkable development. For Trotter,[1] the "herd instinct" is in a literal sense the mainspring of society.[2] Practically all writers who consider that the instincts are an important topic, and who discuss them at all favorably, include gregariousness in their list. Among those who have considered that gregariousness is an instinct may be mentioned James, McDougall, Thorndike, Woodworth, and even Watson. Gregariousness has frequently been made the principal source of energy for that formidable group of tendencies known as the "social instincts". Complications arise of course, and a sort of transition stage is represented by Rivers who considers that, in addition to a native tendency to gregariousness, man is also fitted out with a native tendency to seek solitude.[3] Among the very few psychologists

[1] See Trotter, W., '19, *Instincts of the Herd in Peace and War.*

[2] In a recent book Eldridge also places considerable stress on the gregarious instinct. See Eldridge, S., '23, *Political Action.* In the *Psychologie de la Foule*, Le Bon seems to be too much impressed by the "collective mind" and the "unconscious" to have a very definite opinion on gregariousness one way or the other.

[3] Rivers, W. H. R., '20, *Instinct and the Unconscious*, 150.

who have criticized gregariousness as an instinct may be mentioned Allport and Parmelee.[4] The former has made a strong criticism of gregariousness considered as an instinct, and in the present paper we shall state some other reasons which appear to us to support the belief that this tendency is entirely learned. We shall attempt to show that there are too many contradictions, inconsistencies, and irregularities to justify the claim that this tendency is instinctive; and at the same time an attempt is made to give a plausible explanation of the way these social or solitary tendencies, as the case may be, are acquired.

We shall make no attempt to discuss all of the claims which have been made for the "herd instinct", since a few writers include under this attractive phrase practically all of the tendencies of all of the alleged instincts. In this paper we shall consider that gregariousness means simply the occasional tendency for members of a species to flock together,—which is the meaning given the term by the large majority of writers. Our discussion is further limited to a consideration of the gregarious tendency in man, partly because we are not sufficiently well acquainted with the social behavior of the brutes to have a very definite opinion concerning the extent to which this behavior is native, if indeed it is native at all.

Our remarks on gregariousness proper may be further prefaced by a brief comment on the four following questions which are closely related to the claims for the instinct of gregariousness: (1) universality as a criterion, (2) gregariousness as a negative reaction-tendency to being alone, (3) the evidence from pathology, and (4) habit versus instinct in the history of the race.

(1) In support of the assumption that gregariousness is an instinct, some authors have cited the fact that it is a universal tendency, *i.e.*, all people have associated with some other people at one time or another. This is probably true since a child could scarcely survive without some aid from other people. However, we doubt whether universality is a useful criterion of an instinct. All people make compensatory reactions to gravity, but this tendency is certainly not native. There are apparently too many exceptions to universality to justify its acceptance as a criterion of an instinct.

(2) Some writers define the gregarious instinct as the natural tendency to avoid being alone,—and solitude is said to be "the

[4] See Allport, F. H., '23, *Social Psychology*, 77–79; and Parmelee, M., '13, *The Science of Human Behavior*, 252–253, 380–381, 395-396.

greatest source of fear in infancy". However, it would be difficult to visualize the physical mechanism if gregariousness were defined in such a negative sense as this. Many writers state that solitary confinement is "the most cruel punishment imaginable", but even this is probably not as severe as for society universally to condemn a man;—and regardless of the merits of this question it furnishes no conclusive evidence for gregariousness as an instinct.

(3) Certain types of neurotic behavior have also been cited as evidence in favor of this "instinct". It is well known that neurotic individuals frequently have morbid fears of being alone; but they also have morbid fears of many other things as well: for example, many of them are afraid they have committed the "unpardonable sin"; and no one would claim that all of these fears are instinctive. In this connection, we may cite a case which might seem to furnish some evidence for *solitary* tendencies being native. A few months ago the papers carried a story of a woman who preferred the society of her dog to any of the people she knew. She claimed that the dog was superior in many ways to man, and on the whole a more agreeable companion. At her death she left all of her money, which was a considerable sum, to the care and protection of this animal in his old age. The evidence from pathology is therefore not entirely in favor of the *instinct* of gregariousness.

(4) From the broader evolutionary point of view, gregariousness, like all other tendencies, has probably been acquired. If we are considering the history of the race, even morphological characteristics and reflexes may be looked upon as acquired reaction-tendencies of the germ plasm. However, it is customary, though probably not best at all times, to stress the ontogenetic history which can be observed in the life-time of one individual.

We may now turn to the much neglected subject of child psychology for some further evidence bearing upon our problem. The newly-born child occasionally displays a tendency to remain with his mother or his nurse, principally because it is only in this way that he can be cared for properly; but by original nature he is perfectly satisfied to be alone,—that is to say, as "satisfied" as he is with anything. Some other person feeds him, makes him comfortable, and attempts to please him in various ways; and associations are formed at an early age between the presence of another person and various positive or "pleasurable" reaction-tendencies of his body. Because of the associations which are

formed between the presence of another person, generally his mother, and these positive or social reaction-tendencies, he may soon begin to call for his mother when he wakes up, or at other times, and he may stop crying and possibly smile when she picks him up. He may later stop crying when his father or his older sister take him in their arms. Later still he may even stop crying when a noise is made. The formation of several conditioned responses here is fairly obvious. The first conditioned response is probably the formation of an association or connection between being held by another person and the pleasurable experience of being fed. This type of child behavior has been described by many observers, and needs no further elaboration here.

A similar mechanism of learning has been frequently observed in adults. For example, if we meet a person with whom we have had many pleasurable experiences, or even a person whom we knew in a place where we had many pleasurable experiences, we have a tendency to feel pleased at the mere sight of this individual, and generally desire to keep his company for a time. However, if we meet a person with whom we have had some unfortunate or disagreeable experience, we tend to feel displeased at the sight of him, and we may avoid his company. In general, it may be said that we seek the company of some people and avoid the company of others principally because of the associations which we have formed with them, and not because of the gregarious instinct. The varying attitudes of one individual to various groups, or of various individuals to the same group, is comprehensible only if proper attention is paid to the psychology of habit.[5]

There is much evidence from child psychology that the gregarious tendencies operate in a very irregular fashion. If some member of the household is so exceptional as never to do anything for the child, but, on the other hand, actually to inflict punishment on him, then the child will in all probability avoid this individual. Although a child may acquire a tendency to call for his mother when he wakes up at night, or when he finds himself alone at other times, neither darkness nor solitude are instinctively avoided. It should also be remembered that the child is more liable to have uncomfortable experiences when alone; parents and other people also protect him from some of the acci-

[5] Many writers would of course stress the influence of sex impulses in social behavior; but whatever the strength or nature of these impulses may be it would be doing some violence to the language to call all of them "gregarious."

dents which are likely to occur in the lives of all children. The child is frequently shown off, petted, and praised in a small group. In time he is elevated to the table where he is allowed to eat his meals with the other members of the family, and here he continues to attract attention to himself, in addition to experiencing the other pleasures which children in particular derive from eating.

We see, therefore, that the child generally fares better in a group, and that a connection may be formed between a group situation and a positive or social reaction-tendency. However, this tendency is not without exceptions. A child is generally at home only with a particular group, and he may show some signs of discomfort until he learns that the strangers are also willing to assist him in carrying out some of his wishes. If a child is punished for his behavior while visitors are in the house, he may later begin to react negatively to the presence of other people. Probably no one has ever observed any natural tendency in a child to seek the company of a large crowd of more or less unfamiliar people. If gregariousness were an instinct, however, we might expect that it would be functioning at an early age. A newly-born child is probably not attracted to a person any more than he would be attracted to an automatic machine which could minister to his wants with the same degree of efficiency.

The play of children affords further illustrations of the irregularities of the gregarious instinct. The child soon arrives at the age when he can play best with another child of about the same size. Later still he is attracted to the games of a larger group. It occasionally happens, however, from one cause or another, that a child is not disposed to this form of activity or does not adapt himself well to the group, and such a child is naturally more solitary in his ways. At all ages children remain alone or seek the company of other people principally as a means to an end rather than as an end in itself. The child is perfectly satisfied to do some things entirely alone; but many other things can simply be done best in a small group. The tendency to be with other people or to avoid them is largely a matter of expediency. Most people have a friendly attitude towards children, which partly accounts for the friendly attitude of some children toward strangers. However, children generally want you to do something for them, tell them a story, play with them, etc. Obviously, if a child is left alone he cannot do some of these things, and he may form a negative reaction-tendency to this situation.

It frequently happens that a young child would prefer to lose his younger brother or sister than to lose one of his playthings. In adults, the same type of behavior has been observed. A man is often more annoyed over the loss of his watch than over the loss of one of his neighbors. We may conclude that the absence of many things displeases us, but the displeasure is not entirely dependent upon instinct. Those children who are reared quite apart from society feel distinctly uncomfortable in a group. *Habit* furnishes the key to the situation.

In spite of these and other considerations, some writers may claim that a maturation of instinct takes place in the gregarious tendency in somewhat the same way as has been claimed for the pecking of chicks; and that we would therefore not expect gregariousness to assert itself until this instinct had had the time and the opportunity to develop. Obviously, if one knows nothing and cares little about the learning process, such an ingenious claim might receive some attention. However, it is apparently only a make-shift explanation, being similar in many respects to the claims of some biologists for "spontaneous" variations in the germ plasm, itself a simple admission of complete ignorance. The theory of maturation of instinct also places too much emphasis on factors within the organism, and seems partly to ignore the stimuli which the animal receives.[6] Psychology can well dispense with all these peculiar theories of instinct, including the conative and affective aspects, teleology, etc., which have increased the inertia of thinking on this subject. The most profitable procedure is to attempt to find out how these tendencies are acquired, admitting the possibility at least that they may be like many other habits. This would certainly be preferable to insisting on the instinct as a matter of pure faith.

The evidence against the gregarious instinct is not found exclusively in the field of child psychology. Adults also find it more expedient to do many things in a crowd. Public entertainments, public lectures and musical concerts, picture shows, football games, and many kinds of sport, to say nothing of bridge parties and teas, are staged most economically for a group of people. We frequently find incentive in a group of people when all of them are doing the same thing that we happen to be interested in. The crowd tends to reassure us, and the habit of imitation gives us an additional urge in the same direction.

[6] For a good discussion of maturation of instinct and a good interpretation of the experimeneal data, see Allport, F. H., '23, *Social Psychology*, 44–49; and Watson, J. B., '14, *Behavior, an Introduction to Comparative Psychology*, 138–141.

We may now consider more specifically the mechanism by which gregarious or solitary habits are acquired. In the above discussion we have referred several times to positive or social reaction-tendencies as well as to the desire for pleasurable experiences. However, it would be erroneous to suppose that the process of learning is that which has been called the *Law of Effect*. To say that pleasantness stamps in the positive or social reaction-tendency would be to mistake the positive reaction-tendency itself for a mechanism of learning.[7] The mechanism of learning which we have discussed more closely resembles that of the neurotic girl whose abnormal behavior became associated with the sound of church bells. A neuropathic diathesis and the death of the girl's mother originally caused the abnormal behavior in this familiar case, and the church bells just happened to be ringing at the time. Later, the church bells alone were sufficient to evoke some of the abnormal responses.

Now it might be claimed that if the conditioned reaction mechanism were the mechanism employed in the formation of social or solitary habits, one would expect certain irregularities in the habit formation, and, furthermore, some of the social or solitary habits established in this way should wear out or become weakened with exercise. Each of these characteristics of the learning and forgetting processes have indeed been observed. For example, if a child is not allowed to take part in the activities of a group of children, or if the others bully him or make too much sport of him, the gregarious tendency "wears out," and he may avoid their company. A college student who cannot make the proper appearance in dress, who has physical deformities, or who is somewhat obnoxious socially may soon gain the reputation of being "quiet", a "grind", a "woman hater", etc.,—at least there is a tendency for him to avoid those social gatherings where he appears to the worst advantage. These cases furnish examples of the "inhibition" of conditioned reactions. The very attractive college girl is more enthusiastic over a party than some other girl who attracts very little attention. The proverbial debutante enjoys a sort of social dizziness for a while, especially when these youthful and doubtless innocent frivolities are to her advantage; but at a later time when more serious ends are in view she may become "sick of the social whirl" and actually wish

[7] Thorndike's law of effect by emphasizing satisfyingness and annoyingness seems to place too much emphasis on "awareness" and too little on the physical movement itself. We discuss this question in a critical way in a current number of the *Psychological Review*.

"to get away from it all",—a lonely camp in the mountains may now have its attractions and therapeutic value. This case illustrates the "deterioration of a function through exercise". If gregariousness were an all-powerful instinctive tendency, we would expect the college youth to seek every opportunity of being in a crowd. There are other reasons, however, for forming college groups which are not exactly "gregarious" in nature. In those universities where attendance at chapel is encouraged merely by good speakers, only a small group of students is generally present.

In after life, as in college, a number of factors influence our social or solitary habits. Doctors, lawyers, teachers, etc., may find it to their advantage to attend certain public gatherings; but research men very often avoid them. There are some men who have attempted even to sever all connections with the sins and material temptations of the world, and have retired to some lonely out-of-the-way place to think hard on the problem of human destiny. It is true that we ordinarily do not like to be completely separated from people; but, then, we also do not like to be completely separated from newspapers, books, houses, stores, golf clubs, etc.; and it is not necessary to conclude that we have an instinctive craving for all of these things.

Several writers have claimed that the gregarious instinct is a very important factor in the growth of large cities. It cannot be denied of course that many people leave the country for the city, but this behavior is too complicated to be explained by any single instinct, however powerful it may be. Geographical and economic factors should at least receive some consideration. Many people live in cities simply because of the opportunities and activities which are available. The city man seems to adapt himself very quickly to his country home in the summer; and many of those people who live in a large city for only a few months or years are later very extravagant in their praise of the countryside. One generally likes a place if his life and associates there are agreeable, and if he seems to be satisfying his strongest impulses. If gregariousness were an instinct, it would be difficult to explain why so many people move out of the large cities. The colonization of new lands and the behavior of nomadic tribes afford additional problems.

The foregoing considerations seem to justify the conclusion that gregariousness is not a native tendency. No evidence for its inherited character is found in child psychology. The psychology of habit is also quite adequate to explain all of our social be-

havior, including our attachments to people, lower animals, and even inanimate objects. Habit also explains our negative reaction-tendencies to these three classes of objects.

In the above discussion we have attempted to use only objective or observational data in explaining how the gregarious tendencies are learned. It is probable that some of the other so-called instincts, such as collecting, flight, fighting, curiosity, submission, self-assertion, and many of the factors in parental behavior and repulsion, could be explained in a similar fashion. Child psychology now gives promise of contributing more useful data on these subjects. The recent emphasis on prepotent reflexes in relation to learning, best illustrated in Allport's *Social Psychology,* is a further step in the forward direction. In any event, however, more precise information concerning the extent to which such a general tendency as gregariousness is native or acquired is important for all of the social sciences.

Since the very existence of all instincts is now seriously threatened, we would like to suggest a tendency which some might choose to call an "instinct", a tendency which has been grossly neglected in the past but which has much in its favor. We refer to the tendency of all forms of animal life *to remain in contact with the physical substances of the environment,* which tendency might be appropriately called the "instinct of contact". If it so happens that all of the present-day instincts are eventually dissolved or evaporated, and some scientist, on theoretical grounds perhaps, wishes to hold fast to *one* instinct, then we suggest that our "instinct of contact" probably has more things in its favor than any instinct which has ever been suggested. For example, this instinct is operative even before birth, and is a *universal tendency* in every animal and also every plant. No plausible explanation can possibly be given of the way it is *learned.* It is *perfectly smooth* in its operation, never ceasing to function for even a brief moment. The ultimate goal of this instinct is *never* foreseen, but the immediate end is *always* reached. We are not conscious of its operation at all times. It is a tendency which works both day and night and even after death. This wonderful instinct is also in complete harmony with the tropism theory, and for this reason is very modern. It is obvious that this instinct of contact has a *purposive* character, since it works so uniformly. It must also be *vitally* lodged in the general plan and order of the world, since organic nature is literally *animated* by it. Therefore, if anyone who objects to habit as an explana-

tion wishes to intrench himself behind one great and universal instinct, we urge that this instinct of contact be given the most careful consideration.

It is conceivable that some enthusiast might *seriously* make each of the above claims for the instinctive character of the "contact tendency". Several of the same claims have frequently been made for the instinctive character of gregariousness. The contact tendency, however, seems to be a *perfect* instinct, whereas every one of the claims which have been made for gregariousness is subject to the most extraordinary exceptions. In regard to the "instinct" of contact the question might well be raised, "What *is* an instinct?" The same question might be raised with equal propriety in connection with gregariousness.

REVIEWS

SOCIAL PROBLEMS AND SOCIAL POLICY. Principles Underlying Treatment and Prevention of Poverty, Defectiveness, and Criminality. Edited with an introduction by James Ford, Ph.D., Associate Professor of Social Ethics in Harvard University. Boston. Ginn and Co., 1923. Pp. xiii + 1027. Price $4.00.

The outstanding feature of this survey of the field of social problems is the attempt to find the basis of social policy in ethical theory. This method of approach to the study of this subject, which is followed by the Department of Social Ethics at Harvard University, departs widely from the earlier books in this field, largely given over to description of problems with a minimum of discussion of fundamental principles. It also stands in striking contrast to the modern tendency of sociologists to lay emphasis on the analysis and interpretation of social problems by calling into requisition principles furnished by sociology, psychology, and social psychology.

This volume, which is a source book of selected materials from various authors, belongs to the series of Selections and Documents in Economics, which endeavors to apply the case system of the law schools to economics teaching. Viewed as a source book, the volume is a notable contribution to the study of social problems. Even those who do not agree with the editor's method of approach to the subject as brought out in Part One under the heading of Social Purpose, will find in the remainder of the book an unusually well-selected list of readings culled from materials not otherwise easily available and classified in a clear and logical manner.

The chief weakness of the book, in the reviewer's opinion, is the omission of introductory material at the beginning of each chapter, or at least of each large subdivision of the book, which would give continuity to the different readings and aid the student in his understanding and evaluation of the varying points of view presented. The editor has limited himself to a general introduction covering only seven pages. The value of the book would have been increased if its scope had included the editor's comments and explanations of the materials in a manner similar to that followed, for example, in Park and Burgess' Introduction to the Science of Sociology. In this latter book, which is also a book of readings, one-fourth of the space is given over to the editors' introductions and discussion of materials at the beginning and close of each chapter. If source books are to continue in favor as textbooks, and they seem to supply a real need, it is hoped that authors will realize the necessity of binding their materials together by more than a well-constructed outline.

JESSE F. STEINER.

NERVOUS AND MENTAL RE-EDUCATION. By Shepherd Ivory Franz, Director of Laboratories, St. Elizabeth's Hospital (Government Hospital for the Insane), Washington, D. C.; Professor of Psychology, George Washington University. New York. The Macmillan Company, 1923. Pp. ix + 225. Price $2.00.

This book, in debt to Tait Mackenzie as it acknowledges, is an elementary treatise that will be of suggestive value to many a physiotherapist and to numerous physicians.

The contents are best indicated in their writer's own terms, which are as follows: Preface. Part I, Basis and General Concept of Re-education. Chapter I, What is Re-education? II, Foundation of Habits; III, Mental Attitudes and Incentives. Part II, General Re-education Principles. Chapter IV, The Formation of Habits; V, Movement; VI, General Re-education Methods; VII, Measurement of Performance. Part III, Neurological and Mental Adjustments. Chapter VIII, Anterior Poliomyelitis, or Infantile Paralysis; IX, Locomotor Ataxia, or Tabes Dorsalis; X, Cerebral Paralysis; XI, Speech Defects; XII, The Psychotic. Index.

Chapters five and seven, dealing with bodily movement, its measurement, and its recording, perhaps are the most original parts of the book, and they contain material that might be usefully adopted and put into use in the great majority of hospitals. Some ingenious mechanisms and methods are here illustrated and their use described. For example, the adequate use and value of motiongraphs are explained. Their considerable value in encouraging the perserverance and coöperation of the many patients seems to have been too little emphasized.

GEORGE VAN NESS DEARBORN.

U. S. Public Health Service Reserve, New York City.

PLOTS AND PERSONALITIES: A New Method of Testing and Training the Creative Imagination. By Edwin E. Slosson, Ph.D., Editor of "Science Service," Washington, and June E. Downey, Ph.D., Professor of Psychology in the University of Wyoming. New York. The Century Co., 1922. Pp. iii + 238. Price $1.75. 12mo.

The unusual length of time that this book has been unreviewed on the reviewer's study table in a way is an index of the difficulty of reviewing it. The publishers say: "This is the queerest book we have ever published, and one of the most interesting," and with them in this we go at least half way. And, again: "The book is for everybody in general and the literary person in particular. It undertakes to cast some light on the creative faculty and it explains in non-technical language the psychological principles of plot-making and character creation. There are chapters on other forms of fiction than stories, such a day-dreaming, make-believe, lying, gossiping, imaginary companions, pen-personalities and other psychological alibis." In this we gladly go with the publishers the psychological limit. Evidently the authors were willing to run the risk of joining the far- and

justly-famed "Sheriff of Nottingham" in liking to make one mistake for variety's sake if for nothing else. But certainly its interest never lags behind, which is much.

Of the thirteen chapters proper (not that any is improper!) eight were written by Professor Downey and five by Doctor Slosson. She prepared much of the psychology: "How to use the personal [in the 'agony column' of a metropolitan newspaper] in testing the imagination"; "Training the literary imagination"; "Names and clothes as literary accessories"; "Tricks of the literary imagination"; "Character-creation"; "Plot-making as a safety valve"; "The case-system of literary training," and "Putting a foot-rule on the imagination." Doctor Slosson is responsible for the chapters entitled "How the book came to be written and what it is about"; "The interpretation of the personal"; "What kind of mind the novelist needs"; "Where the writer gets his plots and personalities," and "The problem of the plot." Here, plainly, is novelty galore!

As a psychologist Miss Downey is a great and outstanding success, but this book makes one wonder why she isn't induced by some really enterprising book publisher (for there still are such in remote places undoubtedly) to resign her Wyoming professorship for a year or two while she develops her fortune recently (to be) stated *a la* Carolyn Wells, *et al.*, *et al.*, by writing best-seller detective stories for routine-jaded professors and others to read evenings and Sabbath afternoons when the nap is over. One would think, too, that the bare novelty of a professor having money to invest would add to the persuasion and clinch it into *un fait accompli*. Certainly the professor has joined the glad company, ever increasing, thank heaven! of academic humorists, for the book is extremely clever in this direction, not far behind Professor Leacock's.

There is no doubt, too, that there are in the volume numerous substantial suggestions of much professional value to the writer of fiction. And how much of worldly wisdom for the eastern American coast there is scattered about the chapters! For example, how much warning some other man might take from this newspaper headline (one of a quoted list of eighty or so): "Carried six quarts of whiskey to his wedding, but loses bride, liquor, and freedom!" And how much benefit (were the beneficiary still single) from this one: "Physicians say flirting may cure indigestion."

The book is all that even its publishers claim and much besides. May it prosper and live long!

George Van Ness Dearborn.

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Psychology: The Science of Human Behavior. By Robert Chenault Givler, Professor of Philosophy and Psychology, Tufts College. New York. Harper and Brothers, 1922. Pp. 382. Illustrated.

There are certain self-repressive youngsters who save the icing of their cake until the less desirable portions have been satisfactorily consumed. Motivated by a similar impulse, the reviewer would like to make a few

comments anent deficiencies of Givler's "Psychology, the Science of Human Behavior," in the matter of form, thence turn to the more agreeable task of setting forth a few impressions of the subject matter of that work.

Harpers and Colliers appear to divide the responsibility for bringing out the book. The name of one concern appears on the title page, the other holds the copyright. As an example of the bookmaker's art the less said about the volume the better. It is printed on inferior paper, the type-blurring is often atrocious, the illustrations irrelevant, and it has no index. The name of Professor E. B. *Tichener* looms up on the second printed page.

Let us hope, as there is good reason to believe, that Dr. Givler had little control over the features of his production that have been mentioned. Certainly it would be surprising to find that the carefully wrought text and the decidedly mediocre format of the work were companion products of the same hand.

Having examined the package and pronounced it unattractive, we must now look to its contents. Givler begins: "To psychology belongs the peculiar distinction of being everybody's science." For we may be interested only occasionally in physical forces and chemical combinations, but the universe of men is constantly demanding our attention. Then, "Mental activity is a combination of physical, chemical, and electrical energies developed by the nerves, muscles, and glands, of the human organism. . . . Transformations of electrical into chemical and of chemical energy into heat—such transformations and these alone are, so far as we know, the meaning of the word mental. Mind is response to environment; it is not an entity hidden within the skull; it is rather the name for all the activities except growth and metabolism of which the organism is capable."

According to Givler, we learn to breathe, to swallow, to fixate, to grasp, and to do many other things that have usually been classed in the realm of the fore-ordained. For learning, in Givler's system, is a process whereby "each brain and body-cell goes through a process of becoming coördinated with other cells." Thus "the minutest tissues of our bodies, in becoming immune to certain disease germs, *learn* to neutralize their influence." Consistently, "the learning processes of life start long before we are born." But these things that are learned may nevertheless be instinctive. For one of the . . . earliest acquired tendencies we possess—the *grasping reflex* . . ." is an "instinctive action." By the word "instinct" Givler means "all the inherited tendencies and all the acquired powers which we employ without any conscious effort or without recognizing them as being inherited or acquired." "Intuition, premonition, and 'hunch'—mean little more than instinct itself." It is only in retrospect and with the aid of analysis that the source of instinct is revealed and understood. The terms *unconscious* and *subconscious* are reserved for that portion of our mental life which "proceeds more or less independently of conscious influences," *i.e.*, for instinctive behavior. "Briefly, the subconscious mind means the sum of the knowledge or skill which we once patiently acquired, but which we now only recognize vaguely as our *experience;* while the unconscious mind refers chiefly to racial and family inheritances which give the peculiar

trend and bias that makes the experience we have acquired particularly *ours.*" Among the fundamental instincts are chemotaxis, thermotaxis, heliotaxis, barotaxis, outgoing and withdrawing reactions. Though there is nothing particularly new here, it is well worked out and admirably stated. The combination of concepts enumerated is perhaps unique.

Givler, without effort so far as his reader sees, surmounts the difficulty of consciousness in a behavioristic system by consistently relying on a motor theory derived chiefly from Crile's notion of the "kinetic system." The language of the chapters on sensation consequently rings familiar in the ear of the most conventional "introspectionist" except for an occasional insistence on the fundamental theory. Thus: "The response to any sound, then, is a tendency on the part of the vocal apparatus to duplicate it. . . . Mind is again thus seen to be activity, and in the case of hearing the action is an imitative one"; but "tones are characterized by pitch, loudness, timbre, and volume."

In the chapter on emotion Givler indicates how the suggestions of Darwin concerning the sometime survival value of emotional responses have been partially confirmed by the physiological work of Crile, Cannon, and Stiles. An emotional situation has meaning for the entire organism, and, appropriately, the emotion itself consists of a thorough mobilization of the physico-chemical resources of bodily energy. Once more there is no apparent difficulty in employing terms relating to consciousness and the language of physiological science in one exposition. The first are understood to be but shorthand for the second. Givler does not neglect to point to the importance of the hygiene of emotional life although he finds it necessary to accord but passing mention to Freud.

The familiar "sentiment" appears, somewhat astonishingly, in this behavioristic text, and the treatment of perception is almost conventional. Association is, of course, largely a matter of the conditional reflex, but "ideas" still retain a foothold, for—"ideas are really reactions which are carried out without the normal stimulus to such reactions being present. Let us call them 'as if' reactions. For example, if I mention the word 'apple,' and you say that you are thinking, *i.e.*, have an *idea* of the object I mean, you really react more or less *as* you would *if* an apple were really present."

Perhaps enough has been said to give a fair impression of the attitude toward psychological matters that Givler assumes. From the practical point of view there is reason for congratulation in the fact that he finds time and space to devote to such topics as fatigue, sleep, dreams, suggestion, hypnotism, crowd phenomena, salesmanship, advertising, wit, industrial psychology, and mental hygiene; to each of which, in the order named, a brief chapter is devoted. The stickler may wonder just what prompted the sequence: Advertising, Wit and Humor, Industrial Psychology(!), but the general reader expects the psychologist to know about such things and Givler frankly recognizes the importance of the expectation. It is surprising to realize what little the average Psychology has to offer of practical value to the layman. Lost in the mazes of technical

dispute over sensation, attribute, gestalt, and instinct, we have too often forgotten that these concepts are no more than means to an end. Small wonder that psychological demagogues and fakirs hold their audiences spellbound, and for cash! Fertile in imagination, painstaking in exposition, Givler has come to our rescue. Exceptionally gifted in discovering fortunate phrases, he is both pleasantly conversational and sufficiently dignified. His examples are clever, pointed, and intelligible. It would be difficult to pick a flaw in the literary style of this engaging story of psychology. We might wish that interesting quotations were more frequently assigned to their respective authors, and that a bibliography, index, or something of the sort were appended to further help, along the road to psychological wisdom, those whose interest the book challenges; but all in all it is a splendid introduction for the beginner.

But the reviewer cannot forbear, in closing, to poke a little fun at the numerous photographs that bedeck the book. Some youngish lady clad in a sheet and a pearl necklace opposite page 33 is going through a "simple test of muscular control and coördination" with one finger at her nose and the oth er arm extended into space. Why the sheet helps is left to one's imagination. The "attitude of attention" is illustrated by Dr. Coblenz, looking through a curious instrument. Why this dependence on Dr. Coblenz? Many examples of facial contortion are furnished by obliging but unconscious athletes. A swift turning of certain pages might lead one to suppose that this is a work on track sports. And on page 161 we have the famous "lie-detector," disguised as an *electrical* "sphygomanometer" (note spelling). That there are plainly visible a pair of voice keys and a Dunlap chronoscope, an ordinary kymograph and some supports, doesn't in the least detract from the interest of the title. And isn't that suspiciously like a magnetic recording needle instead of a Marey tambour to which the rubber tube is attached? Was someone having sport with the photographer? Really, these pictures are rare!

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READINGS IN GENERAL PSYCHOLOGY. By Edward Stevens Robinson, Associate Professor of Psychology, and Florence Richardson-Robinson, formerly Assistant Professor of Psychology, University of Chicago. Chicago. The University of Chicago Press, 1923. Pp. xvi + 674.

This volume has been published in the belief that "the student beginning the study of psychology can profitably read much more material than is commonly assigned him." Of the 239 different selections, from 114 different writers, only two are longer than ten pages, and only six are shorter than half a page, most of the selections covering from one to six pages. Each selection is accompanied by the author's name, and a reference to the work from which the selection was taken is given in a footnote. The editors have added exercises at the ends of the sections, and some of the more difficult terms have been defined. The numerous short selections

from various writers are arranged along conservative lines in chapters, sections, and even smaller subdivisions, with practically no introductory or other remarks. The editors state that the work was planned as a reference book for beginning students; almost any instructor, they say, should find a sufficient number of selections which do not conflict to too great an extent with his own views.

"Where suitable materials could be found in the sources, we have used them. Where these sources were too technical, too long, or too saturated with dead issues, we have taken more suitable restatements. We have exercised considerable freedom in using certain excerpts which are not particularly representative of the writers from whom they are taken. While we have made slight changes in many of the selections, these changes are practically all of two kinds. First, sentences or words have been eliminated in order to avoid issues which could not be discussed at length, and which we did not feel could be handled justly in a very brief way. Second, sentences or words have been modified or eliminated in order to disconnect a selection from its original setting. In neither of these cases, we feel sure, have meanings been attributed to an author which he himself did not intend" (p. vi).

Since only a small part of the book has been written by the editors themselves, we may notice more particularly the choice of material. Those who contemplate using this work for reference purposes will be interested in knowing the amount of space which is awarded the various authors. We have made a calculation of the per cent of the book given to each author, exclusive of the space at the chapter and section headings, the space given to the notes written by the editors themselves, and the exercises at the ends of various sections. Table 1 gives the name of each of the 114 different authors, together with the per cent of the space which is awarded each one (1 per cent = 6¼ pages). In the case of joint authorship, we have arbitrarily counted three-fourths of the space for the senior author and one-fourth for the junior author.

TABLE I

SHOWING THE PER CENT OF THE BOOK GIVEN TO EACH AUTHOR

Robinson, E. S.	4.2	Dunlap, K.	1.6
Sully, J.	4.0	Tylor, E. B.	1.5
Kingsbury, F. A.	3.1	Loveday, T.	1.4
James, W.	3.0	Holmes, S. J.	1.4
Stiles, P. G.	2.8	Lewes, G. H.	1.4
Thorndike, E. L.	2.7	Ebbinghaus, H.	1.4
Watson, J. B.	2.5	Carr, H.	1.3
Cory, C. E.	2.2	Parker, G. H.	1.3
Stout, G. F.	2.0	Macnish, R.	1.2
Angell, J. R.	2.0	Breese, B. B.	1.2
Royce, J.	2.0	Binet, A.	1.1
Pillsbury, W. B.	1.9	Sanford, E. C.	1.1
Titchener, E. B.	1.8	Herrick, C. J.	1.1
Judd, C. H.	1.8	Dewey, J.	1.1
Luchiesh, M.	1.6	McDougall, W.	1.0
Whipple, G. M.	1.6	Galton, F.	1.0
Ribot, T. A.	1.6	Kornhauser, A. W.	1.0

Lickley, J. D.	1.0	Green, J. A.	0.5
M'Kendrick, J. G.	0.9	Woodworth, R. S.	0.5
Hough, T.	0.9	Buswell, G. T.	0.4
Ladd, G. T.	0.9	Herrick, C. L.	0.4
Washburn, M. F.	0.9	Jespersen, O.	0.4
Howell, W. H.	0.9	Zahm, J. A.	0.4
Martin, H. N.	0.9	Holt, E. B.	0.4
Hunter, W. S.	0.8	William, A. Y.	0.4
Wundt, W.	0.8	Sullivan, A. M.	0.4
Starch, D.	0.8	Bair, J. H.	0.4
Darwin, C.	0.8	Bingham, W. V.	0.4
Hobhouse, L. T.	0.7	Yerkes, R. M.	0.4
Hollingworth, H. L.	0.7	Perry, R. B.	0.3
Külpe, O.	0.7	Tanner, A. E.	0.3
Woodrow, H.	0.7	Myers, C. S.	0.3
Book, W. F.	0.7	Snodgrass, W.	0.3
Witmer, L.	0.7	Watson, R. R.	0.3
Stratton, G. M.	0.7	Sedgwick, W. T.	0.3
Bain, A.	0.6	Höffding, H.	0.3
Hart, B.	0.6	Burton-Opitz, R.	0.3
Pole, W.	0.6	Moore, H. T.	0.3
Coriat, I. H.	0.6	Wood, A.	0.3
Sherrington, C. S.	0.6	Warren, H. C.	0.3
Slosson, E. E.	0.6	Langfeld, H. S.	0.2
King, I.	0.6	Cannon, W. B.	0.2
Rosanoff, A. J.	0.6	Jeffries, B. J.	0.2
Prince, M.	0.6	Jennings, H. S.	0.2
Ruger, H. A.	0.6	Störring, G.	0.2
Robinson, F. R.	0.6	Taylor, S.	0.2
Conklin, E. G.	0.6	Morgan, C. L.	0.2
Rivers, W. H. R.	0.6	Wells, F. L.	0.2
Keller, H.	0.5	Weiland, C.	0.2
Seashore, C. E.	0.5	Münsterberg, H.	0.1
Hall, G. H.	0.5	Bolton, T. L.	0.1
Calkins, M. W.	0.5	Mach, E.	0.1
Miner, J. B.	0.5	Martin, E. G.	0.1
Pearson, K.	0.5	Clifford, W. K.	0.1
Thomson, W.	0.5	Müller, F. M.	0.1
Lange, C. G.	0.5	Marshall, H. R.	0.1
Shand, A. F.	0.5	Cattell, J. M.	0.1

Before taking too critical an attitude toward the selection of material, we should remember that the material was chosen for its simple style and availability for beginning students, several of the articles being taken from the popular scientific journals. A good psychologist may not always have a style which is well suited to elementary students; and an easy writer may occasionally be a lowly man of science. We can readily understand why the writings of some psychologists were given a prominent place, but the names of several others whose writings are important and at the same time easy to read, are found near the bottom. The reader may look over the list and judge for himself as to whether the literature which is most suitable for elementary students has been included in the book.

The selections in the first chapter of this work, from Pearson, Titchener, Thorndike, Ebbinghaus, Dunlap, Ladd, Watson, Woodworth, Höffding, and Lewes, are quite worth while; but we would have omitted the somewhat personal quotation from Cattell, who also deserves more than 0.1 per cent of the whole book. We see no reason for going back to Galton (in 1883) for a quotation on "Measurement in Psychology"; and the editors have

also been misled in regard to the value of the late James Sully's *Human Mind*, which is awarded 4.0 per cent of the space. The quotations from Sully on "The Place of Psychology in the System of Sciences" (p. 23), "The Image" (p. 289), and "Productive Imagination" (p. 338) are now definitely out of date.

The material on nerve action and the nervous system is carefully selected, and there are also some good paragraphs on reflex action and instinct. McDougall's list of instincts, however, is given. The part on sensation (pp. 139-225) is about what one might expect; although more material might profitably have been taken from the textbooks of Titchener and Breese. The subject of perception follows the usual style. The chapter on imagination and dreams, like the one on imagery and association, contains too many historical quotations. Instead of selecting some modern material on day-dreams, the editors went back to 1888 for some of the peculiar pleasure-pain philosophy of Alexander Bain. The adaptation from R. Macnish on dreams in sleep (7.8 per cent) is interesting enough, but why go all the way back to 1862 in order to ignore the psychoanalytic movement?

The chapter on language would have been improved if more material had been drawn from child psychology. We also see no reason for going back to 1867 for a treatment of "Language and Thought" by "The Most Reverend William, Lord Archbishop of York." In the chapter on thinking, the general reader will again see Dewey's description of the steps in reasoning.

Those who consider the James-Lange theory important will find the chapter on emotion quite to their taste; but in our opinion the brief comment by Ribot is all that saves the treatment. The editors are to be congratulated for including a description of the emotional life in infants by J. B. and R. R. Watson. The chapters on the control of action and personality (70 pages) are very good. In the chapter on individual differences and their measurement there is a quotation from Kingsbury on "Psychological Tests" (16.4 per cent), which makes no mention of Pintner. Terman is not quoted in the book. As a sample test, the Chicago Group Intelligence Test (by Freeman and Rugg) is given.

The editors seem to have relied too much on general books and articles, and too little on recent experimental data, because several of the quotations are now decidedly out of date. The usefulness of the work is seriously impaired by the selection of much philosophical material from men who, as psychologists, are now dead. Too many of the live subjects of modern psychology are avoided.

The usefulness of such a compilation of short selections for the student taking his first course is a matter of opinion. We would prefer much longer references from a more limited number of psychologists. By reading the longer selections, elementary students would have a better opportunity of forming correct impressions of the authors studied.

HULSEY CASON.

GENERAL PSYCHOLOGY. By Walter S. Hunter, Professor of Psychology, University of Kansas. Revised edition. Chicago. The University of Chicago Press, 1923. Pp. xv + 368.

This second edition of this work is similar to the first edition in the following respects: (1) the predominance of experimental facts, (2) the general plan of the book, (3) the conservative attitude, (4) the position that too much stress is ordinarily placed on normal human adult psychology in introductory courses, and (5) the emphasis which is placed on both behavior and consciousness.

"Only a slight expansion over the size of the previous volume has been made. Most of this increase results from amplification of already present material rather than from the addition of strictly new subjects. The chapters which have been most modified are those on 'Animal Psychology,' 'Individual and Applied Psychology,' and 'Imagination and the Sequence of Experiences.' . . . Elsewhere numerous changes in diction, in interconnections, and in content have been made. In some places whole topics have been eliminated where they seemed either too technical or too controversial. Some topics which are left I could see *spurlos versenkt* without regret because of their apparent sterility for the advancement of the science" (p. ix).

In both editions the author presents the material on normal human adult psychology *after* the treatment of animal, individual and applied, abnormal, and social and racial psychology. This order secures the student's interest at the beginning of the course; and the fact that this book deals more particularly with the experimental and observational data of psychology, *i.e.*, the original source material, than any other, and is also clearly written, concise, with summaries fairly complete, and with only a moderate amount of interpretation, gives this work an advantage over the other textbooks not only for use in general psychology classes but also for use as a reference book in the elementary laboratory courses.

The close connection between psychology and philosophy has tended to exaggerate the importance of *systems* of psychology (see pages 74 and 297), and has also overemphasized the importance of normal human adult psychology. As the study of behavior becomes more scientific, there is less necessity for stressing the ingenious but often misleading system of philosophy; there is less fear for the safety of the whole body of knowledge called psychology, and also more emphasis on the experimentally demonstrated facts themselves. In this respect *modern* psychology more closely resembles physiology, physics, and the other sciences. There is nothing particularly *logical*, for example, in the arrangement of topics in elementary physics and physiology textbooks. If the physiologist and physicist can get along without a system, why cannot the psychologist?

The point of view adopted by this author reflects the more modern and also the more desirable developments of psychology. It has been customary for psychologists to start out with a small collection of elements, as they are called, and then attempt to force various facts into these molds. At

certain stages in the construction there is always a good deal of strain, and some facts will not fit in at all. Such facts then are not psychology! "No growing field of study can be held within the limits of a definition, for it will go wherever its devotees take it!" (p. 3). The value of a science lies not in the poetic beauty of its logical scheme, but in the reliability and applicability of its *experimental* facts.

Psychologists who are particularly interested in the concrete data will find this textbook more suitable than any other. If some other book, however, is used as a basis, then the first part of Hunter's work will be found very suitable for further reading. Why finish the one-semester psychology course with almost no reference to animal, individual and applied, abnormal, or social and racial psychology, especially since the introductory course is the only one that many will take? Part one of this work (pp. 13–124) is probably the best short treatment of those fields of psychology which lie outside the strictly "normal human adult" material.

We may now take a more critical attitude. The section on social psychology is concerned too much with instinct, consciousness, and the self. The borderline between psychology and sociology is naturally unscientific, partly because of the sociologists' emphasis on instinct, intelligence, and climate; and self-psychology is too closely connected with the metaphysical justification of morals, and the few remaining forts of a sentimental but dogmatic theology. In laying the foundations for a social psychology, we may reject imitation, super-consciousness, or even desire; but the theoretical question of learning, or the modification of an individual by his environment, should not be given such a subordinate position.

Part two contains a treatment of normal human adult psychology (pp. 127–359). Here we find chapters on Attention, the Nervous System, Reflex Action and Instinct, the Emotions, the Affective Processes, Sensory Processes (two chapters), Imagination and the Sequence of Experiences, Memory, and Thinking. There is nothing radical about this part of the book. "After all, since psychology is a social institution with a history which can only be gradually outgrown, a textbook should be conservative" (p. ix).

The chapter on attention seems to be misplaced. In a conservative treatment of psychology, it would seem that the subject of "Attention" should come after the treatment of the nervous system, reflex and instinct, sensation and feeling—somewhere in the latter part of the book with the more speculative and less fundamental material. It would not be such a great loss if this "chapter heading" were omitted altogether.

We would not place so much emphasis on the hereditary side of the emotions; and we certainly could not subscribe to the statement that "Instincts, inherited coördinations of reflexes, are determiners of what sensations, images, and thoughts we shall be conscious" (p. 231). Consciousness occupies too prominent a place in the discussions of social psychology, emotion, and thinking. Conservatism may make a textbook acceptable to more instructors, but we doubt whether it is always good for the advancement of the science. If you *know* that some of the old material

will be worthless, confusing, and even misleading to the college student, then why keep it in the book?

Although the author confines himself to concrete data in most instances, he commits himself to some questionable propositions in the matter of consciousness. The term "mind" is not often used, but the author insists on a distinction between behavior and consciousness. Conscious phenomena are generally referred to as if they *just appear* of themselves. The conscious processes are supposed to cause nothing; we see these things but they amount to nothing at all. The epiphenomenalistic position, however, is only referred to incidentally in certain parts of the book. For example, in discussing "attention and selection," the author states that "The conditions of selection lie in the organism and are partly a matter of the nervous system. Any other answer assumes that consciousness acts upon the body, a point of view which we cannot accept" (p. 128). Likewise, in speaking of the neural basis of association and mental states: "These latter follow each other in a definite way because neural processes follow each other in a certain way and not because they are bound together by mental ties" (pp. 301–302). It is of course difficult to maintain this epiphenomenalistic position consistently, and complications are likely to follow its acceptance (see especially pp. 129, 130, 229–230, 304, and 348).

Some of the author's definitions of common psychological terms show the same attitude referred to above. "Attention is the clearness into and out of which objects move." "By a sensory process, or sensation, we shall understand the consciousness of any object as present to sense." "By an image is meant the consciousness of an object as not present to sense." Thinking: "A purposive sequence of states of consciousness." "Any state of consciousness plus a general meaning is a concept." "Judgment may therefore be defined as the assignment of meaning to the given qualities."

The treatment of the reaction hypothesis is not at all satisfactory. The epiphenomenalism is complicated all the more when one supposes that consciousness has a substantive character. If consciousness does exist, then we feel that it must amount to something; it must cause some things and be the effect of others. But, after all, this may not be a very important question, since there is such good reason for believing that consciousness does not exist.

HULSEY CASON.

THE TRUTH ABOUT SPIRITUALISM. By William S. Sadler, Fellow of the American College of Surgeons, Senior Attending Surgeon to Columbus Hospital. Chicago. A. C. McClurg & Co., 1923. Pp. vii + 211.

Even before the advent of Freudian psychology attention had been called to the fact that some people who are oppressed with the cares and work of this life occasionally find pleasure and consolation in contemplating that other world where we may lead an idle and care-free existence. This avoidance of reality is the stimulus behind many of our day-dreams

and fads; and those who are most "tender-minded" will probably not look very kindly upon the little volume before us, since it is a most destructive criticism of all those agencies, including spirit phenomena, which are said to operate independently of natural laws. The professional psychologist will find little that is new in this book, but for the elementary student and the layman in psychology it will be both interesting and helpful.

The author describes the various influences which have helped to prepare the public for the present wave of spiritualism, such as inspired fears, astrology, telepathy, hypnotism, christian science, psychic research societies, etc. He traces the development of the modern spiritualistic movement; and the numerous failures of the spiritualists to meet the acid tests are described. The various devices employed by the mediums to deceive the public are also discussed in a most interesting fashion. Phosphorus seems to have been used in producing many of the luminous phenomena. One medium "had a nasty mess with his bottle of phosphorus," and it is claimed that the "spiritualistic movement abounds in incidents which are in a double sense 'luminous'" (p. 99). Doctor Sadler's long experience with mediums convinces him that three-fourths of the common spiritistic manifestations are conscious, deliberate, and commercial frauds, and that the other cases can be easily explained by reference to certain natural laws, as found especially in abnormal psychology. Of those women who honestly believe themselves to be "mediums" a large per cent are hysterical, and many of the male spiritualists seem to have taken up this study when their health began to fail in old age. But some of the spiritualists tell us that hysteria and senile dementia cannot account for *all* of the "manifestations." Stress is now being placed on mental telepathy, a phenomenon which is said to be important not only for the general doctrine of spiritualism but also for common everyday uses. However, mental telepathy has not yet been clearly demonstrated.

A few of those who agree with the author in his attitude toward spiritualism may still insist that there is a need for psychical research. But so far very little benefit has been derived from this form of "research." The messages which come from the spirit world, for one thing, are extremely *human*. "If the spirits are so wise, why have they never whispered the principle of some new and great invention to the mediums?" It seems that some positive harm may even have been done by exaggerating the importance of the supernatural. An abnormal interest in mystical affairs is known to interfere with the sensible use of intelligence in solving the common but important problems of everyday life.

Doctor Sadler claims that he is not a "materialist." He states that he believes in the existence of invisible and spiritual forces, and holds that a belief in immortality is desirable for the ordinary man. This looking toward another world and another life, however, does not seem to the reviewer to be as desirable as has been frequently claimed, since it pushes various problems entirely off the earth into regions so distant that they are not accessible for scientific investigation. The author seems in several

instances to be just on the verge of making the very natural and logical connection between his discussion of spiritualism and *religion*, but in every case he turns aside, apparently content to make the very common and less offensive observations. For example, after stating that "the Supreme Being spake to holy men of old" (p. 39), he suggests that if supernatural sources of knowledge existed in olden times, then why not now! Strong adjectives are used in discussing spiritualism, but very mild expressions are reserved for closely related subjects which are equally mystical. This subject and this method of treatment are worthy of the attention of psychologists, especially when one remembers that there is a strong rebound from the religious man's typewriter on such subjects as scientific dogma, materialism, and evolution.

HULSEY CASON.

NOTES

The Berkshire Industrial Farm, a school for the "problem boy," located at Cánaan, N. Y., is about to begin, in coöperation with the Commonwealth Fund of New York City, a study of conduct disorders. The Berkshire Industrial Farm offers facilities which comprise a perfect laboratory for such a study in a highly scientific manner. A fine trade school is part of the equipment and also a new infirmary, designed to supply observation and special facilities for treatment of "disturbed" cases. A rich recreational program is also available in applying treatment. Dr. Clinton P. McCord, consulting psychiatrist to the Farm, who is director of the mental hygiene work in the public schools of Albany and instructor in educational hygiene in the Albany Medical College, will visit the Farm regularly to direct the psychiatric research work. Dr. McCord will add to his staff for the conduct of this work a resident psychologist, a psychiatric social worker, and a secretary. The aim of the Commonwealth Fund and the Berkshire Industrial Farm in this joint project is to make an intensive study of conduct disorders with the material under prolonged observation and control. It is hoped that the work will prove of value to the country at large in indicating sound methods of treatment in dealing with "problem" boys who are inmates on commitment or otherwise of private and public institutions. Work will be started as soon as the staff which is being carefully selected has been secured.

The University of North Carolina has established, under the direction of the Department of Psychology, a bureau for the investigation of methods for promoting the educational adjustments of its students, and for psychological guidance in the choice of vocations and in adaptation to the various phases of student life. The major problems which are to be undertaken by this bureau are the assembling of a complete bibliography upon various phases of vocational and personnel work, the collecting and administering of available tests for the measurement of mental and vocational aptitudes, the administration of tests of intelligence and other traits to freshmen, and the working out of an administrative technique whereby the results of such tests may be made effective in the organization of college work, the development through research of a suitable group scale for the measurement of fundamental personality traits, the promotion of mental hygiene among students by general methods and more particularly by the individual treatment of students whose work is handicapped by emotional conflicts and other nervous conditions. The work at North Carolina is still in its infancy, but it is hoped that progress will be made toward supplying at this university a need which is now realized by many educational institutions. The purpose of this notice is to enlist the advice and coöperation of similar personnel organizations throughout the country. Address: The Bureau of Personnel Research, Department of Psychology, University of North Carolina, Chapel Hill, N. C.

By editorial request, the following information is presented concerning the equipment of the Psychological Laboratory in one of the large hospitals (No. 81, New York City) of the U. S. Veterans' Bureau, organized in the spring of 1922:

The laboratory is prepared to function in the six following ways, and has for the purpose a very complete outfit of scales and apparatus: 1. *Psychometry* of all classes of people—the measurement of their native intelligence as nearly as it can be done, at present, at adult age. 2. *Psychiatric diagnosis differentiation.* This is especially useful in determining degrees of deterioration as a means of helping to decide between dementia precox simplex, psychosis with mental deficiency, and manic-depressive. In several other ways, however, diagnosis-differentials sometimes are of use. 3. *The qualitative and quantitative estimation of personalities,* for the purpose of selecting the constitutional psychopaths. The feelings and the will can now be roughly estimated in comparison with the average. 4. *Psychanalysis proper,* with or without the requisite psychotherapeutics (mostly impossible, so far, for lack of the large amount of time required). 5. *Vocational selection.* Various aptitudes can now be determined, and superior intelligence more or less accurately measured, or at least indicated, even in the adult. This is intended as a basis of opinion as to the form of rehabilitation most desirable for the veteran concerned. 6. *Special qualitative determination of certain of the chief types of mental process.* Conspicuous among these are the individual's vocabulary, basis of his ideas; his memory and powers of recall; his imagination; his basal common sense (reasoning power); his caution and foresight; his kinesthesia; his persistence; his quickness of voluntary movement; and his relative muscular vigor.

The more or less well-standardized test systems in this outfit are the Stanford revision of the Binet-Simon scale; the Pintner-Paterson performance scale (the shorter form is mostly in use, and a specially adapted report sheet has been printed); the Stenquist mechanical intelligence scale, series I (assembling tests) and also the mechanical-aptitude tests I and II; the Pressy "x-o" tests of social intelligence ("emotion" and "will"); the Downey individual will-temperament scale; the Myers pantomime scale; the Healy picture-completion test, no. 2; and the Roback mentality scale—the last two for the relative estimation of superior adult intelligence.

About the only classes of persons (and they are very few) who are not supplied in this equipment are the blind and the nonpsychotic noncoöperatives. The former may be measured with the Binet-Simon adapted, but there are none so stupid as those who won't try, and these last are all classed as fools of an obvious kind and treated P. R. N.

The electrical apparatus of precision in the laboratory is mostly for the selection or proving of constitutional psychopaths, and consists largely of familiar machines for measuring and recording voluntary control, steadiness, and speed; for measuring muscular strength and volitional persistence; and for estimating, relatively, the imagination and the autonomic vigor and stability.

GEORGE VAN NESS DEARBORN.

NEW BOOKS RECEIVED

(This notice does not preclude the book from further review or comment.)

The Psychology of Laughter and Comedy. By J. Y. T. Greig. New York. Dodd, Mead & Company, Inc., 1923. Pp. 304. Price $4.00

The Fighting Instinct. By Pierre Bovet. New York. Dodd, Mead & Company, Inc., 1923. Pp. 252. Price $4.00.

Mind and Heredity. By Vernon L. Kellogg.

Problems in Psychology. By A. J. Snow. New York. Henry Holt & Company, 1923. Pp. vi+115.

Experiments in Psychology. By William S. Foster. New York. Henry Holt & Company, 1923. Pp. x+309.

Freedom of the Mind in History. By Henry Osborn Taylor. London. The Macmillan Company, Ltd., 1923. Pp. xii+297. Price $2.25.

Psychology and Primitive Culture. By F. C. Bartlett. New York. The Macmillan Company, 1923. Pp. ix+294. Price $2.75.

Report from Pathological Department and the Department of Clinical Psychiatry, Central Indiana Hospital for Insane, Vol. VIII. Pp. 511.

Psychotherapie, Charakterlehre, Psychoanalyse, Hypnose, Psychagogik. By Arthur Kronfeld. Berlin. Julius Springer, 1924. Pp. xi+260. Price $2.40.

A Laboratory Manual in the Psychology of Learning. By William Henry Pyle. Baltimore. Warwick & York, Inc., 1923. Pp. 161. Price $1.50.

A Critical Study of Certain Measures. By Inez May Neterer. Baltimore. Warwick & York, Inc., 1923. Pp. 141. Price $1.80.

A Point Scale for Measuring Mental Ability. 1923 Revision. By Robert Yerkes. Baltimore. Warwick & York, Inc., 1923. Pp. vii+219. Price $2.00.

La Psychanalyse. By Ch. Blondel. Paris. Librarie Felix Alcan, 1924. Pp. xiii+251.

Life and Confessions of a Psychologist. By G. Stanley Hall. New York. D. Appleton & Company, 1923. Pp. ix+623. Price $5.00.

Le Cerveau et la Pensee. By Henri Pieron. Paris. Librarie Felix Alcan, 1923. Pp. iii+326.

Mobilizing the Mid-Brain. By Frederick Pierce. New York. E. P. Dutton & Company, 1924. Pp. xiv+259. Price $3.00.

The Unstable Child. By Florence Mateer. New York. D. Appleton & Company, 1924. Pp. xii+470. Price $2.75.

Pleasure and Behavior. By Frederic Lyman Wells. New York. D. Appleton & Company, 1924. Pp. xvi+273. Price $2.50.

The Ku Klux Klan. By John Moffatt Mecklin. New York. Harcourt, Brace & Company, 1924. Pp. 244.

The Basis of Social Theory. By Albert G. A. Balz. New York. Alfred A. Knopf, 1924. Pp. xxx+252.

The Ethics of Hercules. By R. C. Givler. New York. Alfred A. Knopf, 1924. Pp. iii+204.

The Diagnostic Findings from Seven Years of Examining in the Same School Clinic. By J. E. W. Wallin.

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